

**Report of the  
Commissioners  
of the  
District of  
Columbia**

*1891 ~ 1892*

**(Washington, DC)**





# ANNUAL REPORT

OF THE

## COMMISSIONERS OF THE DISTRICT OF COLUMBIA

FOR

THE YEAR ENDED JUNE 30, 1892.

District of Columbia. Commissioners  
T. Report

---

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1893.

WASHINGTON, D.C. 1893



WASHINGTON  
PUBLIC LIBRARY



WASH.  
REF.  
352.0753  
D614  
1891/1892  
81633

PUBLIC LIBRARY,  
RECEIVED  
JUN 22 1903

# ANNUAL REPORT OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

OFFICE OF THE  
COMMISSIONERS DISTRICT OF COLUMBIA,  
*Washington, December 3, 1892.*

## The PRESIDENT:

The Commissioners of the District of Columbia have prepared, pursuant to the requirements of the organic law of said District, the following report of their official doings for the fiscal year ended June 30, 1892, and have the honor to submit it for transmission to Congress. The essential portion of this report consists of statements of the officials immediately in charge of the several departments of the District government, showing in detail the duties performed by them during said period. The Commissioners have prefaced this exhibit with a brief summary of statistics from those statements and with comments and recommendations having in view improvements in the administration of the affairs of this municipality.

## RECEIPTS AND EXPENDITURES.

A complete statement of the receipts and expenditures of the District for the fiscal year under consideration can not yet be made, for the reason that all obligations incurred for that period have not been definitely ascertained and paid. The principal of these obligations are payments due or to become due for work on public buildings and improvements now in progress. But the following exhibit shows the financial status for the District for said period substantially in accordance with the facts:

The total appropriations payable out of the revenues of the District of Columbia for said period were \$5,513,898.10. The funds subject to requisition for such payment amounted to \$5,508,810.06, which consisted of \$2,826,861.01 received from general taxes on private property, fees for licenses and other privileges, and receipts from all other sources than the United States, and of \$2,681,949.05 as the proportionate amount due from the United States as its share of the aforesaid municipal obligations, said proportion being one-half of the amount appropriated as above after deducting from said appropriations the annual installment of \$150,000 due from the District for its share of the cost of Rock Creek Park. This shows an apparent deficit of \$5,088.04, which does not in fact exist, for the reason that a considerable portion of the appropriations have not been expended and will not be in cases where the



amount involved in contracts will not absorb the entire amount appropriated and when for good reasons work appropriated for has not been done under contract. There will also be refunded a portion of the appropriation advanced for work under the compulsory permit system, one-half of which is collected as a special tax from the property benefited by improvements made under said system and paid back to the District and the United States in equal portions. The unexpended balances and refundments with which the District should be thus credited will amount to at least \$25,000. Hence, the District administration has upon this showing kept its expenditures fully \$20,000 less than its revenues on account of the general fund.

The foregoing does not include the transactions of the water department, the expenses of which are wholly defrayed out of the revenues of the water rents and taxes. The appropriations on that account were \$286,808.14; the revenues were \$301,762.09.

#### DEBT.

*Funded debt.*—The bonded and capitalized debts of the District are, by the law of June 11, 1878—establishing the present form of government—placed under the charge of the Treasurer of the United States. The Commissioners' only duty in relation to them is to include in their annual estimates for the support of the District government an estimate for the interest and sinking fund on these debts and for the salaries and contingent expenses of the clerical force employed by the Treasurer in transacting the sinking-fund business.

The amount of the bonded debt on June 30, 1892, was as follows:

Date of maturity.	Title.	Rate of interest.	Amount.
		<i>Per cent.</i>	
July 30, 1873	Three-year (Emery).....	7.3	\$100
July 1, 1892	Twenty-year funding.....	6	839,100
July 26, 1892	Market.....	7	44,400
July 1, 1899	Twenty-year funding.....	5	870,400
Oct. 1, 1901	Water.....	7	354,000
Nov. 1, 1902	Thirty-year funding.....	6	576,800
July 1, 1903	Water.....	7	15,000
Aug. 1, 1924	Fifty-year funding.....	3.65	14,033,600
July 1, 1901	Ten-year funding.....	3.50	2,400,000
	Total.....		19,133,400

*Floating debt.*—The only floating indebtedness of the District consists of accounts unsettled, because they are not covered by antecedent appropriations. It is very small in amount and consists principally of judgments of the courts rendered subsequent to the passage of the current annual appropriation law and of the obligations incurred to meet minor emergencies. The Commissioners have endeavored to enforce the strictest observance practicable of the requirement of law that no expenditure shall be made nor obligation incurred unless previously authorized by Congressional appropriation.

*Water-supply debts.*—On June 30, 1892, the District owed the United States \$789,104.42 on account of advances for the construction of the water-supply tunnel and appurtenances, and \$284,076.18 on account of advances for 48-inch water main and the Fourteenth street water main and connections. The first is payable in eighteen and the latter in twenty-four equal annual installments, with interest at 3 per cent per annum, wholly out of the revenues of the water department.



## RATE OF TAX.

The rate of general tax for the year was fixed at \$1.50 on each \$100 for all taxable personal property and for all real property, except that used solely for agricultural purposes, the rate of which was \$1 per \$100 of assessed valuation.

The assessed value of the taxable real estate and personal property in the District of Columbia for the fiscal year ended June 30, 1892, which is the basis of the general tax for the fiscal year to end June 30, 1893, is—

Washington:		
Taxable on land.....	\$63, 955, 321	
Taxable on improvements .....	64, 149, 450	
		\$128, 104, 771. 00
Georgetown:		
Taxable on land.....	2, 692, 737	
Taxable on improvements.....	3, 103, 500	
		5, 796, 237. 00
County:		
Taxable on land at \$1.50 .....	6, 426, 155	
Taxable on improvements.....	2, 951, 750	
		9, 377, 905
Taxable on land at \$1 .....	2, 853, 813	
Taxable on improvements at \$1.....	891, 550	
		13, 123, 268. 00
Personal property:		
Washington .....	11, 252, 452	
Georgetown.....	553, 317	
County .....	121, 665	
		11, 927, 434. 00
Gross receipts of street railroads .....		117, 855. 55
Total assessed value of taxable real and personal property on June 30, 1892.....		159, 069, 565. 55

## REASSESSMENT OF INVALIDATED TAXES.

The Commissioners reiterate their recommendation in previous reports that authority be given them to reassess the taxes and special assessments rendered uncollectible under judicial rulings on account of purely technical errors. The collection of a large amount of general and special taxes has been interdicted in this way. The revenues of the District will be further and seriously curtailed under these rulings unless Congress shall interpose remedial legislation. Whatever embarrassment this might entail with regard to taxes thus heretofore rendered void, because of the bearing it might have upon interests innocently acquired by subsequent owners, there can be no reasonable objection, in strict justice or equity, to the enactment of a law authorizing the reassessment and collection of taxes and assessments which may be lost to the District by like defects in future. Sometime since the Commissioners submitted to Congress a bill providing for the proposed necessary legislation, and have since on several occasions favorably reported upon like bills submitted to them by Congressional committees for their report, but no action has as yet been taken by Congress.

## PUBLIC SCHOOLS.

The continued growth and prosperity of the public-school interests are indicative of the growth of our city and the District, no less than they are an indication of the deep interest of our people in the educa-



tion of their children. The many-sided character of modern knowledge and development renders necessary a broad, comprehensive, and methodical system of training to prepare the growing citizen for useful and intelligent life. To provide such schools for the citizens of the District has been the aim of all who have to do with their management. Efforts for this purpose have been encouraged in the main by generous appropriations and wise enactments on the part of Congress. Such schools as our people desire and as any people have a right to demand are necessarily expensive. The schools, therefore, of the District of Columbia require a large proportion of the revenues of the District for their maintenance. The Commissioners, however, have always deemed it wise so to provide for the schools, even though it be done at great expense, not only that their present efficiency may not be impaired, but that the different departments of schools may all be wisely and thoroughly developed.

During the past year the schools have maintained their usual high standing and have been prosperous, as shown by the increase and regularity of attendance. Between 42,000 and 43,000 persons have been instructed in the schools during the year, including those that have attended night schools. This is between 16 and 17 per cent of our population. The Commissioners feel that so great an interest as this demands the most earnest consideration and the wisest judgment.

#### THE HEALTH OFFICE.

In view of the possible danger from cholera during the next summer the Commissioners have asked for an increase of the emergency fund, to be expended only in the event of urgent necessity therefor.

In the garbage service many complaints have been made of the failure of the contractor to fully comply with the terms of his contract. Prior to the beginning of the present fiscal year the appropriation for the garbage service included an amount sufficient for the employment of inspectors, whose duty it was to investigate and report upon all such complaints. The omission to provide such inspectors for the current fiscal year has rendered it impracticable for the health office to verify complaints made of dereliction on the part of the contractor, and difficult to apply a proper remedy. The existing regulations require householders to provide garbage receptacles accessible to the collector, but the absence of inspectors hinders the enforcement of the regulation. In cases of dispute between the citizen and the contractor as to the facts, the health office has no means of ascertaining where the fault may lie. In view of the limited police force, elsewhere herein alluded to, the use of policemen as garbage inspectors is of doubtful expediency. The sanitary and food inspectors have a line of duty which requires their full time and attention. In view of these facts and of the possible contingency of an epidemic of cholera during the coming summer and fall, the Commissioners urge, with all possible emphasis, that garbage inspectors be provided for by an appropriation.

#### THE POLICE.

Since the rendition of an opinion by the United States Supreme Court in the Hutton case there have been no restrictions upon the appointment of citizens of the District upon the police force. All young men of good standing are, under the rules recently adopted, eligible for appointment, and it is believed that the excellent standard of



efficiency heretofore existing among the members of the force will be maintained and excelled.

The inadequacy of the existing force to fully patrol the entire District is again brought to the attention of the lawmaking power of the Government. The rapid increase of population in the District, the growth of suburban villages, the extension of street-car facilities to all parts of the District, and the anticipated early increase of crossings of street railways at high rates of speed, render an increase of the police force absolutely essential to the safety of the citizens and to the good order of the District.

#### FIRE DEPARTMENT.

The fire department has been able during the past year to successfully meet the demands upon its service, but the extension of the territory to be protected and the constant and rapid increase in the number of buildings render expedient the establishment of an additional company to the present force of the department, and the Commissioners have accordingly submitted the requisite estimate therefor.

#### TELEGRAPH AND TELEPHONE SERVICE.

The necessity of extending the limits and utility of the fire-alarm system by its introduction beyond the cities of Washington and Georgetown and by an increased number of boxes within the cities is constantly becoming more pressing and should receive the prompt and favorable consideration of Congress. The Commissioners reiterate, with the emphasis of another year's confirmatory experience, the vital importance of reconstructing the existing lines of the fire-alarm wires either by replacing the poles, which, by reason of their age, are a constant menace to life and property, or by the underground construction of all such lines, a method which the Commissioners earnestly recommend as eminently superior to the old and dangerous practice of stringing wires upon poles and housetops.

#### THE LIQUOR TRAFFIC.

During the first session of the Fifty-first Congress the Commissioners prepared and submitted to that body drafts of two bills (H. R. 10045 and 10046), embodying their views on the subject, but neither of them received the final action of the committees to which they were referred. Either of these bills would effect a great improvement on the present law governing the subject, not only with respect to an increase of revenue, but to the better regulation and surveillance of the business. The Commissioners have on several occasions called attention to the fact that the law regulating the issue of licenses for the sale of intoxicating liquors in the District of Columbia is not satisfactory, and each year's experience more forcibly confirms the truth of the statement. In a previous report, the Commissioners took occasion to make the following remarks with reference to this matter:

To remedy this condition they presented to Congress \* \* \* two bills designed to accomplish what is known as the "high-license system." This system has been and is being tried in many of the States and cities of the country and found to produce desirable results in the decrease of violent crimes and vagrancy, and a proportional increase of happy homes and families. With these enviable results also come a great reduction in the court and police expenses and a decreased poorhouse and workhouse population. The experience in those communities also shows that high-



license fees put the business into the hands of dealers, who, as a rule, are obedient to the law and helpful to the executive officers and agents of the municipalities affected. The Commissioners estimate that a good law of the kind recommended would raise not less than \$300,000 of District revenues, which, with a like sum from the United States, would give from this source alone \$600,000 for yearly improvements. The Commissioners are still hearing of the good results of the high-license system elsewhere, and are the more anxious to have its benefits in the District.

The liquor laws in the District of Columbia are wrecked, the result of mingled and incongruous legislation dating back to the days when there were three distinct and independent municipal systems—the city of Washington, the city of Georgetown, and the levy court. Without a punishment of any kind for offenders in this line, the public peace, private property, and human life are necessarily in danger. The courts have discharged so many prisoners by reason of the inadequacy and weakness of the laws that the police have become discouraged and the citizens disgusted.

The following extracts from testimony of a defendant liquor dealer are significant of what can be done in this District in defiance of law and officers. November 29, 1889, the dealer testified:

I have been keeping a bar and restaurant since April, 1882. I have made \$4,000 a year.

This defendant never had a license for a barroom, except for one year, which expired October 31, 1886. Here was a man swearing that he openly and continuously did a retail-liquor business in this District without a license for seven years (with the exception above noted), making some \$30,000 by it. This man has been convicted many times and fined by the court, but so far has managed to escape payment in the majority of the cases. If, as proposed in the bills presented to Congress, the second offense had been punishable by imprisonment for not less than six months, he would have hesitated before committing the third offense. As the law stands now, his impunity naturally increases.

This ought not to be the condition of the liquor traffic in any civilized community, much less at the capital of this great nation. The Commissioners therefore earnestly urge that some legislation like that proposed in the two bills above referred to or in the McMillan Senate bill of the last session be enacted by this Congress at an early date.

#### BATHING BEACH.

The report of the officer in charge of the bathing beach indicates an increased appreciation of the value of that public convenience during the past season. The facilities afforded were used to the fullest extent whenever the weather was suitable. The construction of the permanent fence at the danger line and the employment of a patrol boat rendered the use of the beach by all classes as nearly absolutely safe as human contrivance could make it. The beach has attained a high regard in the public estimation, which is evidenced by the widespread expressions in favor of its continuance and enlargement. The superintendent of the beach reports a plan for its improvement, with a view to increasing its capacity and attractiveness. If Congress should find this plan too elaborate and expensive, provision should at least be made for continuing the present slope of the bottom within the danger line as far out as permanently deep water and placing thereon a suitable covering of sand, together with provision for the employment of a superintendent of the beach and necessary attendants.

## FLOWER MARKET.

At the last session of Congress the Senate passed a bill to establish a flower market in the District of Columbia, in response to the popular request for a place of this kind. The Florist Club of this city approved and urged the project, and the Commissioners cordially recommended it. The impropriety of scattering the flower stands throughout the market and adjacent to meat and fish stands, as is the necessary condition of affairs at present, is apparent, and the Commissioners again earnestly recommend the furtherance of the project as one in the interest of a large and growing business, and the prospective public improvement of both an ornamental and useful character.

## WORLD'S COLUMBIAN EXPOSITION.

In a former report the Commissioners recommended that a proper appropriation be authorized and fixed by Congress to secure a representation of the District of Columbia at the celebration in Chicago, in 1893, of the discovery of America. The Commissioners have since estimated for an expenditure of \$25,000 on the part of the District, and earnestly hope that it is not too late to secure the appropriation for this purpose. The capital of the nation in which an exposition of this kind is held is assuredly entitled to representative exhibit.

## STREET CLEANING.

The street sweeping and cleaning service is now being performed as efficiently as the amount appropriated therefor will permit. The Commissioners have asked for increased appropriations on this account for the next fiscal year, and hope for a liberal consideration thereof by Congress, in order that the reputation of the District for clean streets may be maintained.

The report of the superintendent, herewith submitted, shows the detail working of the system, and also the necessity for an increased appropriation for the next fiscal year.

## SUNDAY LAW.

The Commissioners have several times recommended the enactment of a law to prohibit the pursuit of ordinary secular occupations on Sunday as being in the interest of public morality and comfort. That day holds a central position in modern civilization, and can not, we believe, be safely disregarded in our municipal legislation.

## NEW MUNICIPAL BUILDING.

It is discreditable to the nation and to this community that the municipal government at the national capital is obliged to resort to the use of a rented building for office accommodations.

Prior to the establishment of a single government for the entire District the offices of the city of Washington, at least, were housed in a building which comported with the business demands and with the dignity of the municipality which they represented. When the District government was first organized, in 1871, the governor of the District, voicing the common sentiment of the community, made the atten-



lowing suggestion in his message of May 15, 1871, to the legislative assembly of the District, viz:

It is therefore recommended that measures be taken for the transfer and sale to the Government of the United States of the city's interest in the building known as the City Hall. The increased business of the courts requires the occupancy of the entire structure for that purpose. It is suggested that a site for a new building, sufficient for the accommodation of the Territorial government, can be secured upon some one of the Government reservations in the city of Washington, and that the proceeds of the sale of the city's share in the City Hall building will go toward defraying the expense of the proposed new structure.

Congress, recognizing the inadequacy of the old City Hall for the accommodation both of the courts and municipal offices, appropriated \$75,000 to purchase the interest of the District in this building, and restricted the use of said money to the erection of a separate municipal building.

An appraisement was made of the District's interest in the city hall at \$75,000, the law providing that the same be applied by said District only for the erection of a suitable building for the District offices.

The money was drawn by the treasurer of the board of public works, but was not expended for the specific purpose for which the appropriation was made. The money, if now treated as a portion of the revenues of the District and set aside for the purpose intended, would go far to form a nucleus of a fund to be devoted to the original purpose.

In this effort to get a suitable municipal building for the capital of the nation, the Commissioners have had the sympathy and support of the people of the District.

In our estimates for the next fiscal year we have recommended the appropriation of \$100,000 to begin the erection of a building. The whole should cost not less than \$600,000. Our opinion is that the proper place for its erection is between Ninth and Seventh streets, on the piece of land belonging to the District lying immediately in front of the Center Market. It would there be central, readily reached by street railway and other lines of city transportation, be an ornament to the principal avenue of the city, and stand on ground already acquired by the District.

The schedule of the cost of city halls in thirty-five of fifty of the largest cities in the United States, prepared by the Census Office, is significant as to the propriety and per capita cost of such buildings. The schedule shows that—

The average cost per capita for city halls in thirty-five of fifty of the largest cities in the United States, as shown by the Eleventh Census, is.....	\$2. 80
The average cost per capita in the District of Columbia for such a building costing \$500,000, estimated population 250,000, would be.....	2. 00
A building costing \$300,000 .....	1. 20

Again we urge the propriety and necessity for a proper municipal building for the capital city.

#### STREET AND ROAD PAVEMENTS.

During the past fiscal year the area of paved streets and roads has been extended as provided for in the appropriation bill, and other streets and roads have been improved by grading and macadamizing. The substitution of the Telford macadam for the ordinary macadam has been continued, and it is believed with benefit to the streets. A portion of the roadway in front of the District building has been laid with vitrified brick pavement as a test of this material, which is now

used to a considerable extent in many of our cities, and from which we have received favorable reports. The pavement was laid by the force of the District at a cost of about \$1.76 per square yard, and bids fair to be successful.

The other pavements laid in the District have been of sheet asphalt, asphalt block, and granite block. They have been laid as detailed in former reports, and there seems to be no necessity for changes in the specifications. The granite curbs 6 by 20 inches, and 8 by 8 inches have been continued during the year. The nature, distribution, and cost of the various street improvements made during the past year, and the schedule of streets to be improved during the current year, are given in detail in the assistant's report. In making up the schedule for new streets to be improved, examination and due weight has been given, not only to the reports of the various citizens' associations, but also to the suggestions of citizens who have seen fit to make them to the District. These have been valuable to the Commissioners, and the new schedule of streets has been made up with great care, and is believed to be that which will best serve the welfare of the people, and forward the general prosperity of the city.

#### PERMIT WORK.

Under the law money appropriated for permit work has been applied by the Commissioners to the laying of sewers, paving of alleys, and the repair and improvement of sidewalks and curb throughout the District. The Commissioners have continued to lay, when requested, a more modern and improved sidewalk, and have made contracts for this purpose with several contractors. The prices of these contractors vary, and the citizen who desires to have work done is required to pay the entire cost of the pavement he desires, less one-half the cost of the cheapest of that kind of improved pavement.

In paving alleys, vitrified brick has been used almost exclusively, as has been done for the past three years. This pavement continues to give satisfaction to the people interested.

Under the law the Commissioners have the right to lay sidewalks, put in sewers, and pave alleys without the consent of the property owners, and tax them with one-half the cost, provided these works are necessary for the public health, safety, or comfort. The bulk of the expenditures for paving alleys has been made in this way, always on a statement from the health officer that such pavement is necessary for the public health.

The results of the permit work appeal, perhaps, more directly to the citizen than any other appropriation under the engineer department. This is the only method by which alleys can be paved in the District. The fund is also used in many cases for the laying of sewers, which the District would have to lay soon, and which in this way are obtained earlier and at less cost to the District. The same may be said of sidewalks.

#### EXTENSION OF STREETS AND SIDEWALKS.

A bill is now pending in Congress to establish a system of streets, avenues, and highways throughout the District outside of the cities of Washington and Georgetown, with the aim to extend the present arrangement of the city of Washington throughout the District of Columbia. With the many irregular subdivisions now existing, it will be a labor of much time and careful thought to so lay out these exten-



sions as to make a harmonious whole; and it is hoped by the Commissioners that either the bill now pending or one of the same purport may become a law at the present session of Congress.

#### PARKING COMMISSION.

The trees of the city and county form one of the most beautiful features of the District of Columbia. The care of these trees and the extension of the same come under the parking commission, composed of three gentlemen who have served since 1871 without compensation. Their recommendations have been followed by the Commissioners, and have proved by the results their wisdom. The area and number of trees to be cared for is constantly increasing, and it is hoped that the increase asked for in the present appropriation bill can be granted by Congress.

#### SURVEYOR'S OFFICE.

This office should be made a salaried one, and not, as now, supported by fees. The invaluable records of this office should be cared for, as they are needed in the courts on almost all occasions for verifying the city lines and boundaries of lots. Liberal appropriations should also be made for the care of them, also for indexing and copying them.

#### BOARD OF EXAMINERS, STEAM ENGINEERS.

The work of this board has been satisfactory, and of great value. It is believed by the Commissioners that the work should be continued.

#### INSPECTOR OF ASPHALT AND CEMENTS.

The Commissioners desire to invite attention to the very interesting report of this officer. During the past year he was sent to the island of Trinidad, from which all the asphalt used in the District is obtained. He has continued his laboratory tests, and some new features have been introduced, and careful studies made of the nature and applicability of asphalts and cements.

#### STEAM RAILROADS.

The solution of the railroad problem in the District still remains an open question. Several plans and bills are now under consideration by Congress, and it is hoped, not only in the interest of the citizens of the District, but in the interest of the traveling public and railroads as well, that appropriate legislation may be obtained at this session.

#### STREET RAILROADS.

The replacement of the old rail by the approved grooved rail is about completed. Another great advance that has been accomplished during the fiscal year is the change of motive power of the Washington and Georgetown Railroad Company. The lines of this road, both in Georgetown and Washington, are now operated by cable. While minor inconveniences and stoppages have occurred, due to a lack of familiarity with the system on the part of the employes, yet general satisfaction is expressed by our citizens with the increased facilities furnished. No other road has yet adopted the new motive power, but it is expected that in the near future the Metropolitan road will use some modern

system. The Rock Creek Railway within the city have their plans made for putting in an underground conduit for the transmission of electric power, and the Eckington and Soldiers' Home Railroad, on that portion of their route where overhead wires are forbidden, use the storage-battery system. It would seem advisable that, with the new motive power, the roads should be required to pave the portion of the public streets for which they are responsible with the same material as that used in the other portions of the same street.

#### ROCK CREEK PARK.

Unexpected delays have occurred in the establishment of the Rock Creek Park, which was provided for by Congress two years ago. Until it is established the Commissioners of the District have no control of it. It is understood and believed that an early decision of the United States Supreme Court will settle all differences now existing, and that during the coming fiscal year the park will become an established fact.

#### ROCK CREEK TUNNEL.

The resolution of the United States Senate requires the Engineer Commissioner of the District of Columbia to report plans and estimate cost for arching over Rock Creek within the boundaries of the city, and tunneling, if necessary. This is a study of great magnitude, for which no money was appropriated. With limited assistance from the sewer department the project is now being studied, and the Commissioners deem the same of great importance.

#### UNDERGROUND WIRES.

No action was taken in the last session of Congress for the further placing of electric wires underground, the report of the board of electrical experts having been received too late for digestion by that body. It is believed by the Commissioners that the only method of causing the electric wires to be placed underground is by directing the removal of those above ground by some fixed date, say one year from the passage of the law, and placing a penalty on the failure of any company to so remove their wires; and in the same law should be embodied the conditions under which the company should be allowed to place wires underground.

#### SEWERS AND SEWAGE DISPOSAL.

For several years the increase in population and buildings in the District has advanced with great rapidity. Sewer facilities have not been given to meet the demands of the new population and improvements. During these years the amounts appropriated for sewers have been small, and at the present time it is absolutely essential for the health of the District that liberal appropriations be made. The climax seems to have been reached in this department. There have been during the past fiscal year in the District cases of typhoid fever and diphtheria, which have been attributed to the lack of proper sewerage facilities. With danger threatening the country from a possible introduction of cholera, it would seem that a wise precaution would dictate the use of every means to put the city in a condition where this calamity would have as little effect as possible. Nothing can add more to the sanitary condition of the District than an ample and proper sewerage of the same; and it is earnestly hoped, on these grounds, that the carefully prepared



schedule of the sewer department may receive the appropriation asked for by the Commissioners.

A board of experts has reported upon the method of disposing of this sewage, and the cost, as estimated, will be \$4,000,000. The time necessary to complete the works for this purpose will be several years; therefore, but a beginning can be made on this important branch during the present fiscal year. Nor will the revenues of the District enable the Commissioners to carry out and complete this system without going beyond, for a time at least, the available funds. It would seem right that the District should go temporarily in debt for this purpose, as this has been found necessary in nearly every city in the United States.

#### LIGHTING.

The Commissioners have nothing new to say on the subject of street lighting, but it is believed that the time has come when the number of hours should be increased to 4,000 per year, as is done in many of our larger cities. At present we are depending upon the light of the moon to piece out the 3,000 hours, as at present lighted.

#### WATER DEPARTMENT.

During the last fiscal year considerable extension has been made in the Potomac water system. One of the most important lines laid was that leading from Eleventh and East Capitol streets, by way of Kentucky avenue extended and Minnesota avenue, to Anacostia. This main is intended to serve as the supply line to the extreme southeastern part of the city, as well as the low territory beyond the Anacostia River. It has sufficient capacity to last for many years.

The urgently needed high-service system to serve portions of the District lying outside of the city is now being studied in detail. Congress at its last session provided that any surplus resources of the water department, arising during the fiscal year 1893, might be applied to the extension of the high service, and when these become available the District will be ready for work. The development of much of the suburban area will be greatly helped by this extension.

#### BRIDGES.

The bridges in the District have been maintained in fair condition during the year. An examination of the structure at M street over Rock Creek showed its condition to be such that Congress has authorized its repair at the cost of the Washington and Georgetown Railroad Company. The new iron structure, at Benning, over the Eastern Branch has been completed. There has been no serious damage to any of the bridges from freshets. It is very desirable that the regulation of travel over these structures should be vested in the Commissioners by appropriate legislation, and substantial advantages to the public would result from such action.

The old bridge across the Eastern Branch, known as the Anacostia bridge, should be rebuilt, and the small wooden structures in the county converted into stone culverts.

Respectfully submitted.

J. W. DOUGLASS,  
JOHN W. ROSS,  
WM. T. ROSSELL,  
*Commissioners of the District of Columbia.*

A:

## REPORT OF THE ASSESSOR.

OFFICE OF THE ASSESSOR, DISTRICT OF COLUMBIA,  
Washington, D. C., November 15, 1892.

GENTLEMEN: I have the honor to submit herewith the annual report of this office for the fiscal year ended June 30, 1892:

Statement of the assessed value of the taxable real estate and personal property in the District of Columbia for the fiscal year ending June 30, 1893.

Washington:		
Taxable on land .....	\$63, 955, 321	
Taxable on improvements.....	64, 149, 450	
		\$128, 104, 771. 00
Georgetown:		
Taxable on land .....	2, 692, 737	
Taxable on improvements.....	3, 103, 500	
		5, 796, 237. 00
County:		
Taxable on land at \$1.50 .....	6, 426, 155	
Taxable on improvements at \$1.50.....	2, 951, 750	
		9, 377, 905. 00
Taxable on land at \$1.....	2, 853, 813	
Taxable on improvements at \$1.....	891, 550	
		3, 745, 363. 00
		147, 024, 276. 00
Total assessed value of real estate .....		
Personal property:		
Washington .....	11, 252, 452	
Georgetown .....	553, 317	
County.....	121, 665	
		11, 927, 434. 00
Gross receipts of railroads .....		117, 855. 55
Total assessed value of real and personal property in the District of Columbia on June 30, 1892 .....		159, 069, 565. 55

### AMOUNT OF TAX FOR 1892-'93.

Washington at \$1.50.....	\$1, 921, 571. 57
Georgetown at \$1.50 .....	86, 943. 56
County at \$1.50.....	140, 668. 57
County at \$1.....	37, 453. 63
	2, 186, 637. 33
Total real estate tax .....	
Personal property at \$1.50 .....	\$178, 911. 51
Gross receipts from railroads at 4 per cent.....	( 2, 910. 60 )
Gross receipts from railroads at 2 per cent.....	( 901. 81 )
	182, 723. 92
Total personal property tax .....	
Total real and personal tax.....	2, 369, 361. 25

### THE NEW ASSESSMENT.

The three assistant assessors appointed under the act of March 3, 1891, submitted their return of assessment for the cities of Washington and Georgetown on the first Monday of June last, at which date the



Board of Equalization commenced its labors as required by the act of March 3, 1883, the return of assessment for county property having been postponed until December 1 by the act of April 28, 1892.

There were 3,166 appeals filed with the Board of Equalization, but with the short time allotted to said Board it was found impossible to give that careful attention and scrutiny to the appeals which their importance demanded and deserved. Many and material changes were made, however, and alterations in the valuations returned by the assistant assessors, varying in percentage, were found necessary and proper in recognition of the proof submitted.

Notwithstanding this effort at "equalization" it was clearly apparent that the assessment was unsatisfactory, and in this connection I regret to say that my favorable anticipations of last year have not been fully realized.

A successful appeal was made to Congress for relief, and in the sundry civil act of August 5, 1892, provision is made for a board of three members to revise and equalize the assessment, and whose decision in all cases connected therewith shall be final.

#### PERSONAL PROPERTY TAX.

The act of March 3, 1877, imposes a tax of \$1.50 on each \$100 of personal property, including bonds, deeds of trust, mortgages, credits and other choses in action or possession owned or held in trust, or otherwise subject to taxation under the provisions of said act, and section 7 of the same act directs the collector of taxes to distrain sufficient goods and chattels as may be necessary to pay any delinquent tax, and for want of such goods and chattels to levy upon and sell at auction the estate and interest of such delinquent in any parcel of land in the District.

A thorough and systematic assessment under this law and a strict enforcement of the collections would undoubtedly result in adding several millions to our taxable property, but the limited force in this and the collector's office makes it absolutely impossible to resort to the ultimatum provided for in the law for making and enforcing the assessment.

The pecuniary results from this source I believe would be more than counterbalanced by the large amount of additional capital which would seek investment in our District in business enterprises, if assured that the obnoxious and inquisitorial features of the personal tax law were abolished and legitimate business affairs secured from unnecessary publicity and inquisitive inspection. I repeat my convictions of last year that the law should be repealed and a general graded license law substituted therefor from which, in my judgment, more money would be realized, and at the same time the burden of taxation would be distributed more equitably and satisfactorily.

#### ARREARS OF TAX BOOKS.

The arrears of tax books for Washington City are now about completed up to and including the fiscal year ended June 30, 1890, which will be of material assistance in giving prompt and accurate information to the taxpayers regarding their unpaid taxes.

The arrears books for Georgetown and the county are progressing as rapidly as the limited force of the office will admit. It is proposed to continue the arrears for 1891 and 1892, and, if possible, consolidate all unpaid taxes into one or two volumes, eliminating all lots and parts of lots on which the taxes are paid, thus making more ready reference.

## COUNTY PLATS.

The plats of the county property under the contract with Mr. Howell are complete, with the exception of a part of one volume, which he promises to deliver within the next two weeks. The office will also be furnished with twelve lithograph copies, for which a separate contract was made with the same party. These plats will very materially aid in making a correct compilation of the county tax books.

## TAX CERTIFICATES.

Eight thousand two hundred and sixty-six tax certificates have been issued during the past fiscal year. The change of law placing the preparation and issue of these certificates in this office has greatly facilitated the business of that branch, and gives greater satisfaction to the public.

## NEW LEGISLATION.

During the last session of Congress several important measures were passed more clearly defining the duties of this office and adding materially to its responsibilities and clerical labor.

The act of March 31, 1892, requires the assessor to prepare the books of assessment before the 1st day of November of each year, together with a statement showing the total amount of the assessment of both real and personal property and the total amount of taxes to be collected under said assessment. The same law provides that hereafter all tax bills shall be made up under the direction of the assessor instead of the collector, as heretofore required.

The act of April 28, 1892, extends the time for making the triennial assessment of real estate in the District of Columbia outside the cities of Washington and Georgetown until December 1, 1892, and also provides that the taxes for this portion of the District for the present fiscal year shall be due and payable on the 1st day of May, 1893, instead of one-half on the 1st day of November, 1892, and one-half on the 1st day of May, 1893, as by existing law. This act also repeals an embarrassing feature in the law of March 3, 1883, which prohibited the board of equalization from reducing the aggregate value of the real property below the aggregate value thereof as made and returned by the assistant assessors.

The act of May 13, 1892, amends the act of February 6, 1879, so as to make it the duty of the assessor, instead of the collector, to prepare and keep in his office, for public inspection, a list of all real estate in the District of Columbia heretofore sold, or which may hereafter be sold, for the nonpayment of any general or special tax or assessment levied or assessed upon the same, said list to show the date of sale and for what taxes sold, in whose name assessed at the time of sale, the amount for which the same was sold, when and to whom conveyed if deeded, or if redeemed from sale the date of redemption. It is also made the duty of the assessor, whenever called upon, to furnish a certified statement of all taxes and assessments that may be due and unpaid at the time of making said certificate, which certificate shall be a bar to the collection and recovery from any subsequent purchaser of any tax or assessment omitted from and which may be a lien upon the real estate mentioned in said certificate.

The act of August 5, 1892 (sundry civil), provides for the appointment by the President of three residents of the District to act as a final board of revision, equalization, and appeals, with power to revise and equalize the assessment returned by the assistant assessors appointed



under the act of March 3, 1891, and in order to give ample time for this revision the taxes for the present fiscal year are to be levied and collected upon the basis of the assessment of 1889.

#### LICENSES.

I view with satisfaction an increase of revenue from this source, notwithstanding repealing legislation and adverse decisions of the courts. Each year adds to the labor of this branch of the office, with no increase of force or compensation. In the last ten years the receipts from licenses have doubled. The clerical force charged with its enforcement is less than then. Since my last report, by act of Congress taking effect on the 1st day of April, 1892, the license on "produce dealers trading in the markets" has been repealed. As stated in former years the status of these dealers has been far from satisfactory, and it is well that the tax has been abolished. On the 1st day of July, 1892, Congress passed a law in reference to the carrying and sale of "dangerous and deadly weapons." This office has been charged with the issue of licenses under this act.

During the past year 3,058 licenses were issued, besides 421 certificates to the collector of taxes for miscellaneous receipts. The amount collected was \$159,954.86

Six hundred and thirty-eight barroom and 462 wholesale liquor licenses were issued, making a decrease of 12 barroom and an increase of 28 wholesale licenses.

The total amount of yearly collections was credited to the various sources hereto appended.

*Receipts from licenses, year ended June 30, 1892.*

	Totals.	Increase.	Decrease.
Apothecaries.....	\$692.03	\$121.67	
Auctioneers.....	1,575.03	150.21	
Brokers.....	100.00		
Banks and bankers.....	463.92	21.50	
Barrooms.....	69,307.47		\$6,529.46
Brewers.....	137.50	12.50	
Bill posters.....	20.00		
Billiard, bagatelle, and other tables.....	2,676.93	340.49	
Cattle brokers.....	561.69	78.34	
Commission merchants.....	2,190.02		165.85
Dealers in ice.....	64.00		100.00
Dealers in liquor (wholesale).....	15,579.91	5,201.90	
Dealers in junk and second-hand property.....	4,616.77	2,063.26	
Dealers in old barrels.....	80.00		
Entertainments, circuses, balls, etc.....	2,906.00	706.00	
Hacks, cabs, and vehicles.....	3,467.17	76.76	
Hotels.....	4,134.93	186.00	
Intelligence offices.....	112.55	32.54	
Insurance companies and agents.....	13,518.27		269.12
Livery stables.....	3,605.03	75.43	
Manufacturers of illuminating gas.....	1,072.00		
Peddlers.....	1,904.37	633.43	
Pawnbrokers.....	600.00		
Produce dealers at large.....	8,941.01		30.76
Produce dealers in markets.....	196.37		4,423.64
Restaurants.....	7,919.02	1,101.80	
Real estate agents.....	12,679.53	2,337.95	
Theatres.....	500.00		200.00
Variety theatres.....	333.34	333.34	
Total.....	\$159,954.86	\$13,473.12	\$11,718.83
Total increase, 1891-'92.....			\$13,473.12
Total decrease, 1891-'92.....			11,718.83
Total increase.....			1,754.29
Receipts from licenses, 1891-'92.....			159,954.86
Receipts from licenses, 1890-'91.....			158,200.57
Total increase.....			1,754.29

*Schedule of rates for licenses issued by the District of Columbia.*

	When due.	Amount per annum.	Remarks, etc.
Apothecaries .....	Nov. 1	\$4. 00	
Auctioneers .....	Nov. 1	100. 00	Bond of \$5,000.
Brokers .....	Nov. 1	100. 00	
Banks and bankers .....	Nov. 1	.50	Each \$1,000 capital invested,
Barrooms .....	Nov. 1	100. 00	Requires majority property owners and residents.
Brewers .....	Nov. 1	25. 00	
Bill posters .....	Nov. 1	20. 00	
Billiard and other tables, etc .....	Nov. 1	10. 00	Each table.
Cattle brokers .....	Nov. 1	20. 00	
Commission merchants .....	Nov. 1	40. 00	
Dealers in ice .....	Nov. 1	4. 00	Each \$1,000 capital invested.
Dealers in liquors (wholesale) .....	Nov. 1	-----	No less than \$25 per annum; each additional \$1,000 of capital invested, \$10.
Dealers in junk and second-hand personal property.	Nov. 1	40. 00	
Dealers in old barrels .....	Nov. 1	10. 00	
Entertainments, balls, etc .....		*5. 00	
Circuses .....		†200. 00	
Hack and all passenger vehicles (two horses).	July 1	10. 00	
Cabs, coupés, and all passenger vehicles (one horse).	July 1	6. 00	
Hotels .....	Nov. 1	-----	No less than \$25 per annum, not exceeding 20 rooms; over 20, \$1 each additional room.
Intelligence offices .....	Nov. 1	10. 00	
Insurance companies .....	Nov. 1	-----	In District of Columbia 50 cents per \$1,000 capital invested.
Insurance agents (each company) .....	Nov. 1	15. 00	And 1 per cent on gross receipts of agency in District of Columbia, payable in January and July.
Livery stables .....	Nov. 1	-----	No less than \$25 per annum for 10 stalls and \$2 for each additional stall.
Manufacturers of illuminating gas .....	Nov. 1	.50	Each \$1,000 capital invested.
Peddlers .....	April 1	50. 00	
Pawnbrokers .....		100. 00	From date of issue; bond \$3,000.
Produce dealers at large .....	April 1	25. 00	
Restaurants .....	Nov. 1	25. 00	
Theatres .....	Nov. 1	100. 00	
Variety theatres .....	Nov. 1	500. 00	

\* Per day or night.

† Per week or any fractional part.

Engineer licenses are of three grades, first, second, and third class; requires examination before a board of engineers; fee each grade, \$3. License is good until revoked or changed to higher grade.

Dealers in deadly and dangerous weapons, bond of \$1,000; no fee.

## REVENUE.

A comparison of the amounts and sources of revenue, while showing an increase, indicates at the same time that whatever reductions there may be are not caused by lack of energy on the part of this office. The decrease as to receipts from barrooms is caused, first, by a less number being granted; second, by a contraction of territory within which they are granted. The mile limit from the Soldiers' Home, and the neighborhood once known as "Hell's Bottom," have had no retail licenses issued since my last report. It is not the province of this office to make recommendations affecting this question; it is to be regretted, nevertheless, that the condition and application of the laws with reference to one of these limits are far from satisfactory. The second largest item of reduction is from markets, and next year will be total.

## HACKS, CABS, AND PUBLIC VEHICLES.

Five hundred and sixty-six public vehicles were licensed the past year, divided as follows, viz: Numbered hacks and omnibuses, etc., drawn by two horses, 132; one-horse cabs, coupés, and carriages, 392,

in addition to 42 large herdies running upon regular routes (not numbered by badges). I had occasion in my last report to recommend a revision of the "rates of fare for public vehicles." Appreciating its importance it was done by this office and secured the approval of the Commissioners July 8, 1892. Since that time our national capital has been visited by over a hundred thousand strangers, and I am glad to say that no complaint in reference to rates has been made to this office.

#### COMMISSION MERCHANTS.

In my last and former reports I have had occasion to call attention to the necessity of legislation governing commission merchants. Since then this want has been met by an act of Congress approved March 21, 1892.

#### INSURANCE.

This branch of revenue to the District government has heretofore received through this office an exhaustive exhibit of the needs and defects of existing law. They were made in the belief that public interests required new and effective legislation. There is but little to add. It is to be regretted that the District of Columbia is still the abiding place of so-called insurance companies, councils, fraternal organizations, etc., many of whom have no responsibility under the law. I can only hope that the future will develop efficient remedies for the present condition of affairs. On the 29th day of July, 1892, Congress passed an act (Public No. 186) entitled:

AN ACT to provide for semiannual statement by foreign corporations doing business in the District of Columbia.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That any insurance company, building association or company, banking company, savings institution, or other company or association advertising for or receiving premiums, deposits, or dues for membership, incorporated under the laws of any other State, Territory, or foreign government, and transacting business within the District of Columbia, shall publish in at least two daily papers printed in the District of Columbia semiannually, during the months of March and September of each year, a full statement, under oath, showing their capital stock and the amount paid in on account of the same, assets, liabilities, debts, deposits, dividends, and dues, as well as their current expenses during six months ending January and July preceding.

SEC. 2. That any such company, association or institution failing to publish statements as required by the first section of this act shall forfeit its right to do business in said District, and thereupon it shall be the duty of said Commissioners to revoke its license or permit to do business in said District: *Provided*, That fraternal beneficiary associations or societies doing business on the lodge plan and paying death benefits be exempted from the provisions of this act.

This law being passed during the last days of Congress, was not generally known by the companies and corporations affected in time to comply strictly with its terms. Its intent was misapprehended and it became necessary for this office on August 30, 1892, to send the matter to the Commissioners for reference to the attorney for the District of Columbia. The attorney decided that the law simply required newspaper publication during the months of March and September of each year, and did not require a duplicate to be filed with the Commissioners of the District of Columbia.

In conclusion, I beg to reiterate my favorable commendations of last year regarding the efficiency of the employes connected with this office, and my grateful acknowledgment to the Commissioners for personal and official courtesies during the year.

Very respectfully,

MATTHEW TRIMBLE,  
Assessor District of Columbia.



## APPENDIX A.

OFFICE OF THE ASSESSOR,  
DISTRICT OF COLUMBIA,  
Washington, August 5, 1892.

GENTLEMEN: In conformity with your request of 11th ultimo, I have the honor to submit herewith an estimate of the amount required for the proper support of this office for fiscal year ending June 30, 1894:

Assessor .....		\$3, 000. 00
2 assistant assessors, \$1,800 .....	\$3, 600. 00	
1 special assistant clerk .....	1, 700. 00	
3 clerks at \$1,400 .....	4, 200. 00	
3 clerks at \$1,200 .....	3, 600. 00	
4 clerks at \$1,000 .....	4, 000. 00	
2 clerks at \$1,000, to continue arrears of taxes .....	2, 000. 00	
1 draftsman .....	1, 200. 00	
		20, 300. 00
		23, 300. 00
License division:		
1 license clerk .....	1, 400. 00	
1 inspector of licenses .....	1, 200. 00	
1 assistant inspector of licenses .....	1, 000. 00	
		3, 600. 00
1 messenger .....	600. 00	
Contingent expenses .....	2, 500. 00	
		3, 100. 00
		30, 000. 00

The foregoing estimate is based upon the actual needs and requirements of the office, and the slight advance asked for in the salaries of my two assistants and license clerk is in recognition of long and faithful service and the responsibilities of their positions.

This office has to depend entirely on the courtesies of other offices for messenger service, and hence the estimate for salary of one messenger is apparent.

Very respectfully,

MATTHEW TRIMBLE,  
Assessor, District of Columbia.

The COMMISSIONER OF THE DISTRICT OF COLUMBIA.

## APPENDIX B.

Value of personal property in the District of Columbia assessed for taxation from 1877 to June 30, 1893.

Year.	Assessed value.	Year.	Assessed value.
1877.....	\$15, 429, 873. 00	1886.....	\$12, 658, 949. 00
1878.....	17, 239, 051. 00	1887.....	11, 934, 245. 00
1879.....	13, 336, 920. 00	1888.....	10, 943, 458. 00
1880.....	11, 421, 431. 00	1889.....	11, 728, 672. 00
1881.....	10, 895, 712. 00	1890.....	11, 023, 167. 00
1882.....	9, 666, 272. 00	1891.....	11, 697, 650. 00
1883.....	9, 028, 812. 00	1892.....	11, 826, 190. 00
1884.....	11, 311, 622. 00	1893.....	12, 045, 290. 00
1885.....	12, 795, 934. 00		

*Value of real property in the District of Columbia as assessed for taxation from 1871 to 1893, inclusive.*

Year.	Washington.	Georgetown.	County.	Total.
1871.....	\$66,818,886	\$6,213,467	\$6,965,101	\$79,997,454
1872.....	62,421,331	6,036,434	6,500,000	74,957,765
1873.....	72,880,380	6,366,488	8,623,056	87,869,924
1874.....	80,539,782	6,272,010	9,621,280	96,433,072
1875.....	82,292,906	6,312,099	9,270,036	97,875,041
1876.....	78,818,934	5,849,317	8,784,433	93,452,684
1877.....	81,246,847	5,953,932	8,728,622	95,929,401
1878.....	83,101,484	6,028,041	8,480,365	97,609,890
1879.....	75,555,801	5,242,224	6,693,417	87,491,442
1880.....	76,085,940	5,291,313	6,603,103	87,980,356
1881.....	77,256,610	5,282,096	6,414,372	88,953,078
1882.....	78,515,793	5,266,943	6,525,759	90,308,495
1883.....	80,615,448	5,307,116	6,611,101	92,533,665
1884.....	80,293,418	4,013,888	6,541,368	90,848,674
1885.....	82,825,255	4,074,358	6,602,851	93,502,464
1886.....	85,132,151	4,160,222	6,760,956	96,053,329
1887.....	96,383,486	4,741,540	7,172,075	108,302,101
1888.....	99,430,297	4,908,345	7,406,186	111,744,830
1889.....	102,886,043	4,987,632	7,611,678	115,485,353
1890.....	119,613,603	5,395,021	12,617,795	137,626,419
1891.....	123,110,219	5,550,976	12,948,696	141,609,891
1892.....	126,383,584	5,682,676	13,415,018	145,481,278
1893.....	138,104,771	5,796,237	13,123,268	147,024,276

### APPENDIX C.

*Amount of tax for 1892-'93.*

Washington, at \$1.50 .....	\$1,921,571.57	
Georgetown, at \$1.50.....	86,943.56	
County, at \$1.50.....	140,668.57	
County, at \$1.00.....	37,453.63	
Total real estate tax .....		\$2,186,637.93
Personal property, at \$1.50 .....	178,911.51	
Gross receipts from railroads, at 4 per cent.....	2,910.60	
Gross receipts from railroads, at 2 per cent.....	901.81	
Total personal property tax.....		182,723.92
Total real and personal tax.....		2,369,361.25

### APPENDIX D.

*Arrears of taxes in the city of Washington to November 1, 1892.*

FROM 1870 TO 1890, BOTH INCLUSIVE.

1870 .....	\$5,615.42	1882 .....	\$10,986.52
1871-'72.....	2,810.38	1883 .....	10,450.74
1873 .....	5,309.63	1884 .....	10,686.14
1874 .....	11,413.53	1885 .....	12,329.39
1875 .....	20,410.22	1886 .....	13,490.76
1876 .....	14,064.59	1887 .....	15,981.15
1877 .....	10,127.85	1888 .....	18,895.06
1878 .....	11,680.33	1889 .....	21,618.90
1879 .....	10,618.10	1890 .....	28,258.70
1880 .....	10,491.42		
1881 .....	10,751.16		
		Grand total .....	255,989.99

## B.

### REPORT OF SPECIAL ASSESSMENT CLERK.

OFFICE OF THE COMMISSIONERS,  
DISTRICT OF COLUMBIA,  
SPECIAL ASSESSMENT DIVISION,  
*Washington, July 1, 1892.*

**GENTLEMEN:** I have the honor to make the following report, for the year ending 30th of June, 1892:

This division has, under the various orders of the Commissioners of the District of Columbia, jurisdiction over all records and papers relating to special assessments made for any class of work, except water-main assessments, and is charged with the duty of preparing the assessments for work done under the "compulsory permit system," and for "improvements and repairs," and after approval to record the same, issue bills therefor, for service on parties interested, care for the return of such service, keep correct accounts with each lot and part of lot affected by any assessment that may have been or that shall be made, investigate and adjust all claims for drawbacks under the several acts of Congress, prepare for issue all certificates that may be found due, and keep proper records and accounts thereof, both as to issue and redemption.

The current work of this division is very great; 9,477 communications and papers have been briefed, acted on, and filed during the year, making a total of 87,637 to date, and 2,048 letters written, exclusive of the reports made upon certificates as to taxes issued from the office of the assessor, District of Columbia.

The special assessments are classed as follows:

Old corporation assessments, for each of the following kinds of work, viz: Sidewalk, curbing, carriage-way, sewer, nuisance, water and gas services, lighting streets, opening alleys, etc., prior to February 21, 1871.

M. G. Emery assessments, including all work done subsequent to February 21, 1871, the assessments for which were approved by M. G. Emery, mayor.

H. D. Cooke assessments, including all work done subsequent to February 21, 1871, the assessments for which were approved by H. D. Cooke, governor.

Board of Public Works assessments, including all assessments made by the Board of Public Works, for work done under contracts made by the said Board.

Commissioners of the District of Columbia assessments, including all assessments made by the Commissioners of the District of Columbia, for work done under the Board of Public Works contracts, and extensions of the same made by the Commissioners of the District of Columbia, for the improvement of avenues and streets.

Alley assessments, for work done under Board of Public Works con-



tracts, and extensions of the same made by the Commissioners of the District of Columbia.

Condemnation assessments, for the payment for land condemned and taken for alleys. These condemnations are made by the United States Marshal's jury, and the assessment therefor is made against property benefited thereby.

Compulsory permit assessments, including the assessments made under acts of Congress approved July 9, 1886; March 3, 1887; July 18, 1888; March 2, 1889; August 6, 1890, and March 3, 1891.

"Improvements and repairs," assessments, under act of Congress approved March 3, 1891.

All lien certificates issued upon the several classes of assessments are recorded in this division, and an account is kept with each certificate, showing amounts of payments thereon, principal, interest, and costs; and when satisfied the certificate is taken up, canceled, and filed.

## DRAWBACK CERTIFICATES.

Issued during the year:

Under acts approved June 18, 1878, and June 27, 1879 .....	\$4, 696. 75
Under act July 5, 1884 .....	None.
Under act approved February 12, 1889:	
To lot owners .....	4, 296. 24
Under act approved February 12, 1889, to holders of scrip ...	None.
Under act approved June 2, 1890 .....	125, 647. 99
Total issue during the year .....	134, 640. 98

The total amount found due, under the various acts of Congress, so far as adjusted, is as follows:

Acts of 1878 and 1879 .....	\$837, 934. 84
Act of 1884 .....	118, 455. 12
Act of 1889:	
To property owners .....	\$44, 606. 93
To holders of scrip .....	8, 962. 05
Act of 1890 .....	53, 568. 98
Total found due .....	231, 793. 34
	1, 241, 752. 28

Total amount issued:

Acts of 1878 and 1879 .....	\$837, 267. 17
Act of 1884 .....	118, 455. 12
Act of 1889:	
To property owners .....	\$44, 293. 15
To holders of scrip .....	8, 962. 05
Act of 1890 .....	53, 255. 20
Total issue .....	231, 793. 34
	1, 240, 770. 83

Awaiting satisfactory evidence before issue:

Acts of 1878 and 1879 (for detailed statement see Appendix I) ....	667. 67
Act of 1889: To property owners (for detailed statement see Appendix II) .....	313. 78
Total awaiting issue .....	981. 45

Of the total issue, there has been redeemed as follows:

In payment of general taxes:

As per last report .....	\$526, 709. 70
Received during the year .....	72, 549. 27
	\$599, 258. 97

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 25

## In payment of special assessments:

As per last report .....	\$556, 782. 39	
Received during the year .....	1, 590. 71	\$558, 373. 10
Total redemption .....		1, 157, 632. 07

## RECAPITULATION OF DRAWBACK CERTIFICATES.

Total issue .....	1, 240, 770. 83
Total redemption .....	1, 157, 632. 07
Balance outstanding .....	83, 138. 76

## EIGHT PER CENT CERTIFICATES OF INDEBTEDNESS.

Amount outstanding June 30, 1891, as per last report, par .....	\$26, 200. 00
Amount redeemed:	
In payment of special assessments, par .....	\$150. 00
By United States Treasurer, <i>ex officio</i> commissioner of the sinking fund, as per information kindly furnished from his office, par .....	3, 900. 00
Total redemption .....	4, 050. 00
Amount outstanding June 30, 1892 .....	22, 150. 00

To which should be added the accrued interest at 6 per centum per annum, from maturity.

## SPECIAL ASSESSMENTS PLEDGED TO THE REDEMPTION OF THE EIGHT PER CENT CERTIFICATES OF INDEBTEDNESS.

Amount outstanding June 30, 1891, as per last report .....	\$167, 985. 03
Amount collected, exclusive of interest and costs .....	2, 566. 93
Outstanding June 30, 1892, uncollected .....	165, 418. 10

This statement does not include the accrued interest upon lien certificates held by the United States Treasurer, *ex officio* commissioner of the sinking fund. Attention is invited to the fact that the right of the office to enforce the collection of a considerable proportion of the special assessments heretofore reported as outstanding, has been restrained by decrees of the supreme court of the District of Columbia. The amount of the cancellations made in accordance with such decrees to June 30, 1892, is, exclusive of interest for an average of seventeen years, at 10 per cent per annum (for detailed statement see Appendix III) .....

\$56, 266. 56

Canceled by order of the Commissioners of the District of Columbia, as erroneous or exempt by law (for detailed statement see Appendix IV) ..	30, 535. 48
Balance outstanding, exclusive of interest .....	78, 616. 06

## LIEN CERTIFICATES NOT HELD BY THE UNITED STATES TREASURER, EX OFFICIO COMMISSIONER OF THE SINKING FUND.

Amount of outstanding lien certificates, issued by the late board of public works, and held by third parties, for the redemption of which there are outstanding special assessments, as per report for 1890, exclusive of interest .....	\$61, 266. 39
--	---------------

Redeemed by collections, by sale of property, and by surrender of lien certificates in satisfaction of assessments:

During year ending June 30, 1891, par .....	\$567. 14
During year ending June 30, 1892, par .....	1, 058. 27
	\$1, 625. 41

Redeemed by drawback certificates under act approved June 2, 1890, in consequence of decrees of supreme courts:

During year ending June 30, 1891, par .....	7, 666. 91
During year ending June 30, 1892, par .....	43, 705. 00
	51, 371. 91
	52, 997. 32

Outstanding June 30, 1892, exclusive of interest (see Appendix V) ...	8, 269. 07
---	------------

# 26 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

OUTSTANDING LIEN CERTIFICATES FOR WHICH THERE IS NO ASSESSMENT, BUT SUBJECT TO REDEMPTION BY DRAWBACK-CERTIFICATES UPON PRESENTATION AND DEMAND, UNDER EXISTING LAWS.

Outstanding June 30, 1891, as per last report, par.....	\$207. 74
Redeemed during the year.....	None.
Outstanding June 30, 1892 .....	207. 74
(For detailed statement see Appendix VI.)	

## “COMPULSORY PERMIT” ASSESSMENTS.

Under the several acts of Congress, relative to permit work, assessments have been made, in accordance with the orders of the Commissioners of the District of Columbia, amounting to \$51,413.91 (for detailed statement of which see Appendix VII).

For account of these assessments, collections have been made, as follows:

Under act approved—	
July 9, 1886.....	
March 3, 1887.....	
July 18, 1888.....	\$128. 84
March 2, 1889.....	574. 90
August 6, 1890.....	8, 367. 36
March 3, 1891.....	21, 579. 23
	17, 649. 19
	48, 299. 52

## OLD CORPORATION ASSESSMENTS.

There has been collected for account of assessments made by the late corporation of Washington, during the year, exclusive of interest:

Improvement of streets .....	\$127. 33
Lighting streets, pumps, etc .....	40. 79
Total.....	168. 12

Of these old corporation assessments there have been canceled, in accordance with decrees of the supreme court of the District of Columbia, in certiorari to date, exclusive of interest for an averaged term of twenty years at 10 per centum per annum \$12,024.16 (for detailed statement see Appendix VIII).

Additional items of the old corporation assessments have been canceled by order of the Commissioners of the District of Columbia, as required by existing laws to date, amounting to \$7,029.68 (for detailed statement see Appendix IX).

## SALES.

At the sale in April, 1892, property was sold for nonpayment of special assessments, at which the following sums were realized:

Compulsory permit assessments .....	\$169. 90
Old corporation assessments .....	None.
Board of public works and Commissioners of the District of Columbia assessments.....	278. 45
Total, exclusive of interest.....	448. 35



Before closing this report I desire to place on record an expression of my appreciation of the kind consideration uniformly shown me by the Commissioners of the District of Columbia, as well as the fidelity with which the clerks in my office have discharged their duty.

Very respectfully,

WM. OSCAR ROOME,  
*Special Assessment Clerk, District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

APPENDIX I.—Statement of drawback certificates awaiting issue under acts approved June 18, 1878, and June 27, 1879.

No. of certificate.	To whom assessed.	Square.	Lot.	Location.	Amount.
4346	Maselon Harison <i>et al</i> .....	338	14	Eleventh street .....	\$0.46
6083	George H. Edmonds .....	525	6	New York avenue .....	5.67
6730	H. B. Owen .....	383	Part.	B street .....	19.02
7232	W. H. Martin .....	368	12	Tenth street .....	23.00
7500	John A. Simon .....	447	H	O street .....	9.64
7976	James Devlin .....	37	19	Twenty-third street .....	12.84
8359	John Hitz .....	180	40	Q street .....	12.86
8361	Ella Mason .....	180	49	Sixteenth street .....	43.19
8391	Julian W. Dean .....	195	68	O street .....	12.67
8462	T. L. Hanna and F. Jones .....	447	10	Seventh street .....	10.86
8778	James D. Jackson .....			Seventh street road .....	.03
8860	S. B. Perkins .....	184	20	Sixteenth street .....	24.90
9030	A. Lee .....	324	5	Twelfth street .....	3.65
9085	Annie R. Gilbert and J. Whitney.	361	26	Ninth street .....	35.43
9154	Isaac Sickles .....	381	6	Tenth street .....	.52
9184	H. W. Mehan .....	690	7	B street .....	58.03
9185	do .....	690	6	do .....	1.71
9213	Cecelia Evans .....	876	5	South Carolina avenue .....	23.98
9256	James D. Jackson .....			Seventh street road .....	36.46
9263	J. T. Dudley .....			do .....	14.74
9276	W. G. Parkhurst .....	525	5	Fourth street .....	2.99
9412	A. Lee .....	324	5	Twelfth street .....	3.53
9505	W. W. McNier heirs .....	70	128	Dumbarton street .....	15.10
9555	C. P. Russell .....	N. of 515	1	Fourth street .....	9.56
9768	J. T. Dudley .....			Seventh street road .....	.01
9794	Eliza Duff .....	324	11	Eleventh street .....	13.23
9855	John McCarty .....	209	12, 13	Fifteenth street .....	15.45
11029	do .....	209	12, 13	do .....	27.86
11408	William Brown .....	344	4	Eleventh street .....	.70
11994	Abraham M. Green .....	467	2	G street .....	5.19
12092	J. L. Savage .....	336	B	Alley .....	12.09
12403	Armand Jardin to M. Dubois .....	168	16	Pennsylvania avenue .....	1.87
12741	Geo. V. and Martha Leech .....	181	118	Sixteenth street .....	.31
12875	L. C. Baker <i>et al</i> .....	403	11	Eighth street .....	.30
12907	do .....	403	12	do .....	1.00
13039	Hiram W. Green .....	467	2	G street .....	8.46
13218	A. Brooks and A. Bowen, trustees.	582	16	Alley .....	28.23
13287	Gabriel Mack .....	582	1	do .....	11.62
13924	Ella Mason .....	180	49	Sixteenth street .....	4.28
13939	Annie R. Gilbert and J. Whitney.	361	26	Ninth street .....	1.33
14090	James Devlin .....	37	19	Twentieth-third street .....	2.05
14734	James Lewis .....	183	C	Sixteenth street .....	1.13
14735	John Donovan .....	183	25	do .....	5.11
14739	S. B. Perkins .....	184	20	do .....	5.63
14796	H. B. Owen .....	383	Part.	B street .....	4.18
14802	W. G. Parkhurst .....	525	5	Fourth street .....	.36
14861	Henry Waters .....			Hamilton road .....	1.29
15186	W. H. Martin .....	368	12	Tenth street .....	4.70
15322	James D. Jackson .....			Seventh street road .....	3.65
15579	Catharine M. Johnson .....	376	D	Ninth street .....	2.61
15844	James Lewis .....	192	34	Sixteenth street .....	3.48
15934	Morris Schlosser .....	675	139	Myrtle street .....	13.20
16036	W. W. McNier heirs .....	70	128	Dumbarton street .....	3.01
16157	John J. Luckett .....	497	10	Sixth street .....	1.99
16392	Mary Hessler .....	492	A	Four-and-a-half street .....	32.30
16441	Henry Smith .....	99	13	Twentieth street .....	7.84
16665	Patrick McManus .....	623	111	Defrees street .....	13.73

# 28 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## APPENDIX I.—Statement of drawback certificates awaiting issue under acts approved June 18, 1878, and June 27, 1879.—Continued.

No. of certificate.	To whom assessed.	Square.	Lot.	Location.	Amount.
16679	Daniel W. Smith.....	623	92	Defrees street.....	\$1.57
16686	Nathan Evans.....	623	53	do.....	1.58
16698	Thomas J. Mattingly.....	623	109	do.....	13.74
17255	Francis Howard.....	209	52	Sampson street.....	21.49
17468	John R. Goodwin.....	375	68	Grant street.....	.20
17469	do.....	375	69	do.....	10.06
	Total.....				637.67

## APPENDIX II.—Statement of drawback certificates awaiting issue under act approved February 12, 1889.

No. of certificate.	To whom assessed.	Square.	Lot.	Amount.
24062	Robert Earle.....			
24063	do.....	101	16	\$27.27
24225	Virginia Handy.....	101	17	35.08
24270	Allen C. Beaman.....	15	16	17.01
24271	do.....	154	11	6.13
24294	John W. Starr.....	154	11	6.53
24295	do.....	132	9	7.03
24296	do.....	132	9	7.73
24338	Melinda Sears.....	132	9	8.53
24346	W. H. N. Mack.....	209	16	5.85
24351	R. S. Maine.....	209	52	14.56
24358	R. Wilson.....	209	55	4.17
24366	C. H. W. Stokeley.....	209	40	5.16
24367	George Mason.....	209	45, 46	6.68
24430	George H. Turton.....	209	46	6.69
24507	James Smith.....	316	3	11.40
24512	R. A. W. Radcliffe.....	448	8	16.96
24513	do.....	448	33	4.25
24514	do.....	448	33	4.71
24515	do.....	448	33	5.17
24674	John Dwyer.....	448	33	5.57
	Total.....	763	15	107.30
				313.78

## APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari.

File No.	Square.	Lot.	Location.	Amount.
52078	409	1	Maryland avenue.....	
52078	409	2	do.....	
52104	94	E	Massachusetts avenue.....	\$627.71
52104	94	F	do.....	627.72
52104	94	G	do.....	178.61
52104	94	H	do.....	178.61
52699	433	1	Maryland avenue.....	178.61
52700	410	16	do.....	475.20
52700	410	15	do.....	595.01
52700	410	14	do.....	203.54
52700	410	13	do.....	203.54
52700	410	12	do.....	203.54
52700	410	11	do.....	203.54
52700	410	10	do.....	203.54
52700	410	9	do.....	203.54
52701	433	2	do.....	136.21
60949	556	6	do.....	136.21
60952	893	8	Third street.....	627.72
60952	893	8	Eighth street.....	379.32
60952	893	9	Maryland avenue.....	115.37
60953	651	23	do.....	59.00
66953	651	24	South Capitol street.....	56.63
60953	651	25	do.....	124.05
60953	651	26	do.....	86.15
60953	651	27	do.....	82.71
				82.71
				82.71

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 29

APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari—Continued.

File No.	Square.	Lot.	Location.	Amount.
60953	651	28	South Capitol street	\$73. 23
60953	651	29	do	73. 22
60953	651	30	do	82. 70
60953	651	31	do	82. 70
60953	651	32	do	86. 15
63866	651	2	N street	106. 84
63866	651	3	do	106. 85
63866	651	4	do	106. 95
63866	651	5	do	106. 84
63866	651	6	do	106. 84
63866	651	7	do	90. 79
67096	87	94	} Beall	283. 62
67096	87	95		
67883	245	E	Vermont avenue	435. 60
67883	245	E	M street	399. 11
69180	891	25	Seventh street	60. 67
69180	891	25	G street	238. 09
69180	982	9	H street	402. 63
69180	81	11	F street	947. 11
69180	81	11	Twenty-second street	249. 97
69180	389	18	G street	137. 08
69180	389	19	do	137. 08
69180	389	20	do	136. 80
69180	389	20	Tenth street	332. 46
69180	390	18	do	332. 91
69180	390	18	G street	137. 07
69180	390	19	do	136. 84
69565	4	24	Twenty-sixth street	457. 02
69565	4	24	L street	33. 29
69566	596	17	M street	432. 28
69567	422	2	O street	49. 88
69567	422	2	Eighth street	349. 77
69567	422	3	do	38. 86
69568	17	14	Alley	69. 52
69569	419	1	R street	245. 98
69570	385	3	Maryland avenue	30. 33
69570	385	4	do	122. 92
69570	385	4	do	189. 95
69570	385	3	C street	7. 79
69570	385	4	do	19. 56
69571	25	23	Aqueduct street	225. 23
69571	25	3	} do	18. 12
69571	25	4		
70242	117	23	Alley	3. 62
70242	117	23	do	2. 23
70242	140	15	do	15. 34
70242	140	16	do	10. 23
70242	117	23	Nineteenth street	115. 37
70242	117	23	do	37. 89
70242	140	15	do	74. 33
70242	140	16	do	49. 31
70243	38	1	Twenty-third street	239. 60
70243	38	1	Pennsylvania avenue	197. 23
70810	762	6	Alley	601. 24
70962	511	19	P street	108. 46
70965	511	20	do	108. 46
72065	504	23	Four-and-a-Half street	498. 37
72066	529	1	Third street	665. 58
72066	529	1	G street	147. 77
72087	1005	6	Maryland avenue	347. 39
72087	1005	6	do	86. 71
74048	891	21	Seventh street	60. 68
74048	891	22	do	60. 68
74048	891	23	do	60. 67
74048	891	24	do	60. 67
74049	117	B	Nineteenth street	41. 57
74057	1074	16	C street	12. 35
74057	1075	3	E street	110. 08
74057	1075	2	do	140. 08
74057	1075	1	do	135. 47
74058	354	A	Eleventh street	189. 20
74058	389	17	G street	137. 08
74059	649	1	M street	159. 21
74059	649	2	do	110. 56
74059	649	3	do	97. 47
74059	649	4	do	97. 47
74059	649	5	do	110. 56
74059	649	6	do	159. 21
74060	140	16	Nineteenth street	49. 31
74060	140	16	Alley	49. 92



## APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari—Continued.

File No.	Square.	Lot.	Location.	Amount.
74649	299	14	Twelfth street.....	\$109.42
74649	299	15	do.....	222.34
74727	299	14	Maryland avenue.....	310.53
74729	W. of 4	1	K street.....	122.73
74729	W. of 4	1	Twenty-seventh street.....	160.96
74730	794	1	Fourth street.....	323.33
74731	794	4	Third street.....	422.28
74731	794	5	do.....	375.31
74732	801	28	Fourth street.....	130.63
74732	801	29	do.....	147.55
74733	960	21	F street.....	254.23
74733	960	21	Tenth street.....	48.82
74734	17	1	H street.....	147.11
74734	17	1	Twenty-fifth street.....	40.91
74735	76	B	Twenty-first street.....	88.48
74735	76	C	do.....	88.48
74735	76	D	do.....	75.27
74736	26	4	L street.....	64.11
74737	1,032	1	Fourteenth street.....	90.19
74737	1,032	4	do.....	51.19
74738	780	1	Fourth street.....	227.55
74738	780	24	do.....	189.62
74738	780	23	do.....	170.65
74738	780	22	do.....	76.57
74738	780	22	do.....	76.57
74739	686	7	Delaware avenue.....	234.57
74739	686	G	do.....	5.36
74769	801	12	Third street.....	128.99
74771	140	18	Nineteenth street.....	122.68
74771	140	18	M street.....	159.01
74772	16	2	I street.....	260.64
74773	104	16	Twenty-first street.....	328.86
74774	278	27	Vermont avenue.....	22.14
74774	278	27	Thirteenth street.....	95.93
75078	191	40	T street.....	61.97
75078	191	41	do.....	61.98
75078	191	42	do.....	61.98
75078	191	43	do.....	61.98
75078	191	44	do.....	61.98
75078	191	45	do.....	61.98
75078	191	46	do.....	61.98
75078	191	51	do.....	366.99
75078	191	51	Fifteenth street.....	91.32
75079	477	1	Q street.....	46.38
75079	477	1	Fifth street.....	284.03
75080	207	12	R street.....	78.66
75080	207	63	S street.....	58.68
75080	207	66	do.....	58.68
75080	207	67	do.....	58.68
75081	207	39	Johnson avenue.....	373.49
75081	207	63	Alley.....	12.06
75081	207	66	do.....	8.27
75081	207	13	do.....	8.28
75082	134	12	Nineteenth street.....	98.86
75083	368	13	N street.....	41.27
75084	268	1	Maryland avenue.....	109.64
75084	268	1	Thirteenth street.....	377.83
75085	37	20	Alley.....	277.55
75085	W. of 4	11	Twenty-seventh.....	18.56
75085	W. of 4	1	K street.....	148.09
75086	795	7	Third street.....	34.17
75087	859	19	Seventh street.....	302.66
75088	104	8	Twenty-first street.....	167.46
75259	274	65	Alley.....	246.65
75746	356	Part	Tenth street.....	3.06
75747	983	3	Eleventh street.....	192.97
75747	983	3	F street.....	138.00
75748	795	10	Third street.....	109.69
75750	749	33	do.....	130.19
75750	749	34	do.....	41.67
75750	749	35	do.....	41.68
75750	749	38	do.....	41.67
75750	749	39	do.....	39.88
75750	749	40	do.....	39.88
75750	749	41	do.....	39.88
75751	748	10	M street.....	39.87
75751	748	11	do.....	317.81
75752	208	73	Fifteenth street.....	241.07
75752	208	73	Coreoran street.....	475.70
76941	Res. 7	All	B street.....	59.75
76941	Res. 7	All	Seventh street.....	3,068.23
				1,537.52

## APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari—Continued.

File No.	Square.	Lot.	Location.	Amount.
76942	38	19	Twenty-third street	\$73.73
76942	38	20	do	73.73
76943	1008	1	D street	56.94
76943	1008	2	do	35.37
76943	1008	3	do	37.91
76943	1008	4	do	37.91
76943	1008	5	do	35.37
76943	1008	6	do	56.95
76944	255	1	Thirteen-and-a-Half street	168.52
76944	255	1	D street	30.96
76944	255	14	Thirteen-and-a-Half street	16.83
76945	449	3	Alley	85.05
76946	319	10	H street	351.60
76947	144	6	Nineteenth street	67.00
76948	191	61	Fifteenth street	91.32
76948	191	65	do	85.13
76949	N. of 650	2	M street	84.03
76949	N. of 650	3	do	195.86
77134	595	Part	do	223.51
77134	595	Part	First street	628.50
77136	892	36	F street	255.61
77136	892	36	Eighth street	36.26
77136	892	37	do	31.31
77136	892	38	do	31.31
77990	865	3	A street	93.51
77992	75	9	I street	121.34
78055	158	12	Eighteenth street	373.42
78056	957	1	I street	144.52
78056	958	7	do	104.98
78057	502	69	Four-and-a-Half street	134.33
78057	502	70	do	158.88
78058	405	7	Ninth street	89.03
78429	938	1	C street	37.13
78429	938	2	do	37.21
78429	963	1	do	37.08
78429	963	2	do	37.21
78429	963	3	do	37.21
78429	963	4	do	37.07
78429	1010	10	do	64.11
78429	1010	11	do	64.11
78429	963	1	Eleventh street	94.00
78429	963	16	do	67.84
78429	963	15	do	68.00
78429	963	11	D street	34.79
78429	963	12	do	34.72
78458	W. of 4	2	K street	144.38
78459	825	Part	Fourth street	49.68
78459	825	Part	do	74.16
78459	825	Part	do	237.32
78459	825	Part	do	78.62
78460	76	17	L street	202.66
78461	43	4	G street	20.07
78461	43	4	do	72.41
78461	43	5	do	53.61
78461	43	5	Twenty-third street	224.87
78462	238	D	Fourteenth street	45.52
78462	238	C	do	47.85
78462	238	B	do	47.85
78464	818	2	B street	134.34
78489	104	1	E street	42.81
78490	S. 104	8	do	107.88
78490	S. 104	8	Alley	22.98
78490	S. 104	8	Twentieth street	79.54
78491	1027	9	G street	103.52
78491	1027	9	do	103.52
78491	1027	9	Thirteenth street	159.03
78493	198	16	L street	104.97
81663	788	21	Fourth street	250.41
81680	800	1	do	56.28
81680	800	20	do	44.80
81680	800	1	M street	161.87
81680	800	2	do	161.87
81680	800	2	Third street	13.58
81683	265	9	Fourteenth street	179.88
81683	263	3	C street	11.46
81683	263	4	do	5.72
81683	265	9	C street	41.72
81684	131	14	T street	63.30
81685	550	11	Alley	30.08
81685	580	10	C street	68.54



# 32 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari—Continued.

File No.	Square.	Lot.	Location.	Amount.
				\$135.41
81686	847	A	Sixth street.....	10.14
81687	990	1	C street.....	141.73
81819	878	14	Sixth street.....	160.91
81822	835	1	do.....	39.31
81822	835	1	E street.....	24.56
81822	835	1	do.....	50.27
81822	835	14	Sixth street.....	24.00
81822	1026	54	I street.....	231.42
81823	457	8	Seventh street.....	383.12
81824	314	1	Eleventh street.....	92.71
81824	314	39	do.....	92.71
81824	314	40	do.....	197.10
81825	442	T	Rhode Island avenue.....	10.54
81825	442	2	Alley.....	10.54
81825	442	4	do.....	9.25
81825	442	K	do.....	9.25
81825	442	L	do.....	84.77
81825	442	39	Sixth street.....	84.77
81825	442	40	do.....	135.42
81825	442	43	do.....	135.40
81825	442	44	do.....	90.77
81826	81	5	E street.....	
81875	27	23	{ Washington street.....	185.11
81875	27	24		
81876	S. of 463	7	C street.....	80.91
81877	353	4	Eleventh street.....	174.85
81878	65	1	Boundary street.....	43.32
81879	266	20	Thirteenth street.....	108.44
81881	650	2	N street.....	197.02
81882	477	7	Sixth street.....	181.25
81940	477	5	do.....	105.10
81941	701	3	N street.....	94.14
81942	959	1	Eleventh street.....	94.09
81942	959	1	G street.....	97.31
81942	959	1	do.....	22.77
81942	959	2	do.....	59.96
81943	580	1	First street.....	85.06
81943	580	14	do.....	14.24
81944	935	1	Tenth street.....	190.94
81944	935	1	F street.....	43.88
81944	935	2	do.....	43.24
81944	935	2	Alley.....	8.47
81945	912	40	G street.....	238.09
82230	843	7	Fifth street.....	163.21
82738	401	3	Eighth street.....	110.95
82750	675	257	K street.....	41.41
82750	675	258	do.....	66.79
82751	889	12	Seventh street.....	242.70
82752	61	123	Second street.....	60.29
82755	29	5	I street.....	442.68
82756	621	32	K street.....	88.59
82758	675	230	do.....	97.49
82765	889	7	H street.....	85.79
82766	933	55	Tenth street.....	139.35
82767	932	3	Ninth street.....	46.48
82767	932	4	do.....	46.27
82767	932	5	do.....	46.27
83345	50	13	Twenty-third street.....	38.00
83345	50	15	do.....	52.77
83346	314	34	Eleventh street.....	94.50
83347	154	3	R street.....	42.16
83348	28	15	K street.....	326.86
83349	454	6	Alley.....	29.77
83351	327	1	E street.....	11.04
83351	327	1	Eleventh street.....	848.13
83922	792	9	North Carolina avenue.....	185.63
83923	792	9	Fourth street.....	201.90
83923	257	C	D street.....	30.06
83923	292	B	do.....	49.01
83923	314	24	Eleventh street.....	73.74
83923	314	25	do.....	73.74
83923	314	26	do.....	73.74
83923	314	27	do.....	73.74
83924	799	15	Fourth street.....	92.44
83924	799	16	do.....	93.49
83925	873	22	Pennsylvania avenue.....	34.39
83925	873	23	do.....	185.92
83926	265	10	C street.....	205.39
83927	32	1	Twenty-fourth street.....	51.91
83928	1033	2	Fourteenth street.....	45.83
				54.25

## APPENDIX III.—Board of Public Works and Commissioners' assessment canceled by decree of Supreme Court of the District of Columbia in certiorari—Continued.

File No.	Square.	Lot.	Location.	Amount.
83928	1033	3	Fourteenth street.....	\$54.19
84328	85	10	Twentieth street.....	200.76
85258	416	3	T street.....	5.25
85258	416	4	do.....	6.76
85258	416	3	Eighth street.....	11.39
85258	416	4	do.....	15.94
85259	690	A	B street.....	138.69
85259	990	A	Alley.....	10.34
86526	86	4	I street.....	239.74
86526	86	4	Alley.....	26.32
86704	503	21	Union street.....	178.81
86704	503	21	Alley.....	10.88
86896	294	3	C street.....	89.73
86896	294	3	Ohio avenue.....	47.44
86897	978	1	Eleventh street.....	158.15
86897	800	16	Fourth street.....	95.50
86897	800	17	do.....	44.82
86898	214	A	Fifteenth street.....	97.96
86900	89	102	Beall street.....	67.29
86900	4	3	K street.....	360.93
86917	558	8	L street.....	50.97
86919	276	54	R street.....	85.71
86920	479	23	Fifth street.....	209.63
86981	183	52	Seventeenth street.....	97.17
86982	452	6	I street.....	468.83
86982	452	6	Seventh street.....	125.67
86983	734	11	First street.....	161.77
87047	630	3	Alley.....	2.07
87047	630	3	do.....	4.45
87047	630	3	do.....	5.75
87047	630	4	do.....	3.68
87047	630	3	New Jersey avenue.....	78.18
87047	630	3	do.....	109.54
87047	630	3	do.....	39.03
87047	630	4	do.....	70.50
87436	873	13	C street.....	158.82
87462	S. of 572	2	do.....	319.40
87478	327	7	E street.....	12.69
87478	327	8	do.....	12.69
87478	327	9	do.....	11.03
87478	327	9	Twelfth street.....	642.60
87479	211	of 8	Fifteenth street.....	119.62
87529	569	44	First street.....	373.87
87530	734	5	North Carolina avenue.....	100.46
Total.....				56,266.56

## APPENDIX IV.—Board of Public Works and Commissioners' assessments canceled by order of the Commissioners of the District of Columbia.

File No.	Why canceled.	Square.	Lot.	Location.	Amount.
18716	Omitted from collector's certificate.....	424	3	Alley.....	\$6.03
18734	do.....	276	37	do.....	6.27
18750	do.....	467	39	do.....	13.69
18872	do.....	495	58	F street.....	98.70
18876	do.....	467	43	Alley.....	13.69
18928	Exempt; school purposes.....	197	3	do.....	77.92
18929	Omitted from collector's certificate.....	425	18	do.....	2.64
18929	do.....	425	19	do.....	2.18
19497	Exempt; District of Columbia property.....	752	1	G street.....	33.33
19497	do.....	752	2	do.....	21.57
19785	Exempt; public alley.....	432	E	D street.....	40.32
20357	do.....	312	5	Alley.....	32.59
20860	Omitted from collector's certificate.....	312	6	do.....	32.59
20855	do.....	302	26	do.....	10.07
20857	do.....	86	20	do.....	54.90
20911	do.....	416	2	do.....	26.52
20997	Exempt; church property.....	466	19	do.....	20.11
21007	Omitted from collector's certificate.....	397	8	do.....	19.39
21030	do.....	70	18	do.....	12.16
21031	do.....	933	54	do.....	18.59
22948	Canceled; erroneous.....	400	44	do.....	7.89
24764	Omitted from collector's certificate.....	492	13	do.....	16.61
		446	1	Alley.....	21.78



## APPENDIX IV.—Board of Public Works and Commissioners' assessments canceled by order of the Commissioners of the District of Columbia—Continued.

File No.	Why canceled.	Square.	Lot.	Location.	Amount.
25535	Equity	286	2	New York avenue	\$105.57
27545	Omitted from collector's certificate	345	9	H street	20.74
27651	Exempt; District of Columbia property	44	14	Bridge	128.36
27699	Exempt; public street	14	36	do	0.26
29442	Canceled; erroneous	70	6	Alley	55.98
30093	do	365	151	Columbia street	19.12
31361	Exempt; erroneous	26	182	Bridge street	105.56
31361	do	26	184	do	407.93
31406	do	757	8	C street	112.68
31500	Exempt	150	Alley	Boundary avenue	21.60
31500	do	150	do	do	21.60
31586	Omitted from collector's certificate	487	10	Fifth street	19.41
31635	Erroneous	209	29	Alley	22.53
32284	Omitted from collector's certificate	967	1	North Carolina avenue	12.95
32767	Exempt; graveyard	109	All	Boundary	524.94
32886	Omitted from collector's certificate	254	24	Alley	46.16
33111	Exempt; District of Columbia property	375	25	do	10.58
33111	do	375	26	do	10.58
33111	do	375	27	do	10.58
33211	Omitted from collector's certificate	296	17	B street	339.76
33273	Erroneous	313	2	Twelfth street	25.14
33316	Omitted from collector's certificate	494	12	Alley	15.49
33534	do	195	46	do	9.41
33534	do	195	47	do	10.14
33534	do	195	48	do	10.14
33534	do	195	49	do	10.14
33775	Erroneous	339	34	Alley	17.68
33775	do	339	35	do	17.68
33775	do	339	36	do	17.68
33815	Omitted from collector's certificate	242	5	Fourteenth street	226.03
36523	Canceled by act of Congress, June 18, 1884	36	22	Prospect avenue	146.38
36523	do	49	22	do	146.35
36523	do	804	7	Fifth street	234.63
36523	do	Plat 19	7	Brentwood road	529.73
36523	do	Sqr. 804	2	M street	253.32
51040	Omitted from collector's certificate	51	55	First street	354.49
52155	do	732	21	B street	14.71
52313	do	140	20	Alley	21.68
52313	do	1,053	4	D street	34.77
52593	Erroneous	1,053	5	do	35.42
52651	Decree in equity	N. of 4	5	Pennsylvania avenue	86.05
52682	Omitted from collector's certificate	82	All	Virginia avenue	549.84
52682	do	368	14	Alley	3.28
52742	Erroneous	368	15	do	.00
52759	Erroneous (exempt)	242	A	Rhode Island avenue	389.00
53763	Omitted from collector's certificate	96	Part	Mills street	495.82
53872	Exempt; school purposes	N. of 515	35	Alley	15.13
53872	do	182	6	Seventeenth street	559.99
53872	do	182	7	do	
53925	Exempt; church purposes	182	8	do	
53925	do	367	9	Alley	11.14
53925	do	367	10	do	6.82
56731	Canceled, erroneous (Todd & Brown's sub-division).	367	11	do	11.14
56731	do	Block 1	3	Eighth street	63.69
57017	Exempt; District of Columbia property	Block 1	4	do	63.70
57152	Exempt; erroneous	Block 1	10	Columbia Road	65.02
57152	do	Sq. 239	4	Riggs street	52.15
57221	Exempt; orphan asylum	239	5	do	52.15
57225	Omitted from collector's certificate	County	120	Eighth street extended	21.23
57276	Exempt; church property	Oak	C	Columbia Road	125.09
57276	do	Lawn			
53872	Exempt; school purposes	Sq. 515	70	N street	17.17
53872	do	515	71	do	42.33
53872	do	182	6	Seventeenth street	90.86
53872	do	182	7	M street	519.65
53872	do	182	24	do	108.47
53872	do	182	25	do	108.47
53872	do	182	26	do	108.47
53872	do	182	27	do	108.47
53872	do	182	28	do	108.47
57629	District of Columbia property	182	29	do	108.47
57723	Exempt; church property	W. of 4	Part	do	108.47
57723	do	788	9	Third street	153.42
57723	do	788	10	do	86.31
59737	Erroneous	788	10	do	253.77
60282	Omitted from collector's certificate	788	11	A street	278.57
60869	Erroneous	35	30	Bridge	116.96
		446	M	Alley	40.10
		463	2	Seventh street	21.79
					109.77

## APPENDIX IV.—Board of Public Works and Commissioners' assessments canceled by order of the Commissioners of the District of Columbia—Continued.

File No.	Why canceled.	Square.	Lot.	Location.	Amount.
60869	Erroneous	463	2	Seventh street	\$12.01
60869	do	S. of 463	6	do	13.81
60869	do	S. of 463	7	do	13.73
61080	do	624	27	G street	55.03
61679	do	766	6	Virginia avenue	51.00
61679	do	766	6	do	17.66
61679	do	766	6	do	17.66
61679	do	766	6	do	16.62
61679	do	766	7	do	71.49
61679	do	766	8	do	25.96
61679	do	766	8	do	41.89
61679	do	766	9	do	71.66
61866	Exempt; school	675	222	Myrtle Street	95.79
61988	Exempt; church property	282	1	Massachusetts avenue	506.39
61988	do	282	2	do	189.85
61988	do	282	3	do	228.61
63078	Omitted from collector's certificate	934	1	G street	219.46
64700	Exempt	155	5, 6	Q street	31.57
64700	do	362	Alley	R street	29.07
64700	do	236	18	Thirteenth street	9.18
64700	do	157	55	Massachusetts avenue	72.32
64851	Exempt; orphan asylum	207	31	Alley	57.78
64851	do	207	30	do	60.44
64851	do	207	36	Johnson avenue	12.06
64851	do	207	33	do	12.74
64851	do	207	32	do	12.74
64851	do	207	37	do	12.06
64851	do	207	31	do	12.74
65034	Exempt	207	30	Fifteenth street	95.14
65034	do	207	29	do	95.14
65034	do	207	28	do	95.14
65034	do	207	27	do	95.14
65034	do	207	26	do	90.13
65034	do	207	25	do	90.13
65034	do	207	24	do	90.13
65538	Omitted from collector's certificate	366	58	Alley	7.30
65767	do	417	6	do	11.49
65767	do	417	6	do	11.50
65785	do	(*)	70	Seventh street	9.08
66010	do	353	10	Tenth street	38.93
66150	Exempt; church property	317	11	K street	353.89
66150	do	317	11	Eleventh street	250.01
66150	do	317	12	K street	137.60
66855	Omitted from collector's certificate	417	6	Alley	11.50
66950	Erroneous	46	21	Bridge	120.66
67050	Equity cause	542	10	Four-and-a-half street	285.44
67050	do	542	11	do	301.89
67050	do	542	12	do	285.44
67050	do	542	13	do	285.44
67050	do	542	14	do	285.44
67983	do	542	1	Third street	48.82
67983	do	542	23	do	48.82
67983	do	542	24	do	48.83
69286	Equity	754	6	E street	108.05
69287	Erroneous	170	All	Alley	3, 338.95
69453	Omitted from collector's certificate	698	1	M street	124.75
69453	do	698	2	do	85.45
69453	do	698	3	do	77.18
69574	do	367	H	O street	56.06
69642	Erroneous	88	1	Twenty-first street	172.69
70252	Omitted from collector's certificate	674	Alley	K street	67.21
70536	Omitted by tax sale	214	12	do	51.98
70536	do	214	12	Alley	3.37
71349	District of Columbia property	72	12	New Hampshire avenue	272.44
71406	Church property	375	Part	Ninth street	42.99
71406	do	375	Part	Grant place	208.47
71406	do	375	Part	Alley	9.81
71501	Exempt, erroneous	364	All	do	1, 830.11
71997	Omitted from tax sale	391	2	Water street	936.31
72017	Erroneous	158	All	Alley	5, 011.53
72457	Omitted from tax sale	367	54	Eighth street	104.42
72457	do	367	54	Alley	12.64
72573	do	74	0	Pennsylvania avenue	420.66
73027	Erroneous	534	24	B street	114.15
73066	Equity	389	5	G street	137.07
74140	Erroneous	630	3	Alley	94.25
74140	do	630	11	do	160.20
74140	do	630	8	do	52.98

\* Hawes subdivision.



## APPENDIX IV.—Board of Public Works and Commissioners' assessments canceled by order of the Commissioners of the District of Columbia—Continued.

File No.	Why canceled.	Square.	Lot.	Location.	Amount.
74140	Erroneous.....	630	4	Alley.....	\$114.32
74873	Omitted from tax sale.....	274	E	.....	3.06
75117	Omitted from collector's certificate.....	407	13	Eighth street.....	114.95
75612	do.....	425	7	Alley.....	3.86
75642	do.....	425	7	do.....	3.86
76443	Erroneous.....	540	20	.....	40.90
77232	do.....	725	All	Alley.....	568.05
77351	Omitted from tax sale.....	41	15	Twenty-third street..	122.26
77631	Erroneous.....	534	25	B street.....	114.15
77631	do.....	534	26	do.....	171.22
77631	do.....	335	2	Alley.....	1.50
77920	Church property.....	335	2	R street.....	388.89
77920	do.....	335	2	Tenth street.....	53.61
82737	Omitted from collector's certificate.....	Block 22	5	Columbia Road.....	21.68
83463	Public property.....	Sq. 156	51	P street.....	81.90
84560	Omitted from collector's certificate.....	1,026	1	Fourteenth street.....	81.90
Total.....					30,535.48

## APPENDIX V.—Statement of lien certificates outstanding not held by commissioner of the sinking fund.

No. of certi- cate.	Amount.	No. of certi- cate.	Amount.	No. of certi- cate.	Amount.
5.....	\$187.08	1531.....	\$107.37	2057.....	\$109.12
177.....	89.58	1533.....	107.37	2225.....	13.95
347.....	399.11	1534.....	107.37	2227.....	92.99
602.....	26.72	1535.....	107.37	2250.....	239.74
693.....	384.39	1536.....	107.37	2416.....	12.40
838.....	172.32	1537.....	107.37	2666.....	116.40
914.....	131.42	1538.....	107.37	2786.....	351.60
1142.....	130.74	1539.....	107.37	3017.....	98.33
1148.....	148.70	1564.....	132.19	3033.....	53.34
1178.....	174.74	1566.....	273.57	3296.....	200.00
1179.....	123.20	1681.....	289.38	3438.....	43.68
1377.....	231.41	1682.....	404.47	3439.....	9.69
1378.....	771.53	1932.....	181.04	6085.....	1.35
1514.....	224.20	1939.....	122.15	19984.....	266.64
1526.....	107.38	1940.....	122.16	*21.....	9.08
1527.....	107.37	2006.....	99.91	50.....	12.13
1528.....	107.37	2019.....	134.33	55.....	12.37
1529.....	107.37	2020.....	158.88		
1530.....	107.37	2041.....	117.22		
				Total .....	8, 269.07

\* County.

## APPENDIX VI.—Statement of amounts of outstanding lien certificates subject to redemption in drawback certificates upon presentation and demand.

No. of lien.	Amount.	No. of lien.	Amount.
1681.....	\$38.74	3389.....	\$3.81
1682.....	54.13	3390.....	54.36
3387.....	32.00		
3388.....	24.70	Total.....	207.74

## APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892.

File No.	Square.	Work.	Location.	Amount.	Entered of record.	Act approved.
7447	774	Paving.....	Alley.....	\$691.85	July 13, 1891	Aug. 6, 1890
74469	257	do.....	do.....		do.....	
74470	290	Sidewalk.....	Twelfth street.....	1,211.33	do.....	Do.
74472	321	Sewer.....	Alley.....	703.63	July 14, 1891	Do.
74471	570	Sidewalk.....	Rhode Island avenue.....	241.47	do.....	Do.
74473	365	Paving.....	Alley.....	46.26	do.....	Do.
74449	621	Sewer.....	do.....	358.31	do.....	Do.
	620			467.04	July 15, 1891	Do.

## APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892—Continued.

File No.	Square.	Work.	Location.	Amount.	Entered of record.	Act approved.
78448	{ 740 741 742 N. of 743	Sidewalk .....	East side of New Jersey avenue.	\$160.50	July 15, 1891	Aug. 6, 1890
78455	177	Paving .....	Alley .....	869.68	do .....	Do.
78465	{ 98 99	Sidewalk .....	New Hampshire avenue ..	530.76	do .....	Do.
78485	1018	Paving .....	Alley and Hope avenue....	1,468.96	July 16, 1891	Do.
78486	856	do .....	Alley .....	366.25	do .....	Do.
78487	587	do .....	do .....	1,915.02	do .....	Do.
78502	{ 727 728 758 759 785 786	Sidewalk .....	A street .....	293.32	July 18, 1891	Do.
78501	617	Sewer .....	N street .....	268.12	do .....	Do.
78503	841	Paving .....	Alley .....	323.06	do .....	Do.
78530	191	do .....	do .....	1,120.87	July 25, 1891	Do.
78529	71	Sidewalk .....	New Hampshire avenue ..	526.25	do .....	Do.
78566	445	Paving .....	Alley .....	592.35	July 29, 1891	Do.
78565	995	do .....	do .....	1,329.89	do .....	Do.
79006	878	Sewer .....	Navy Place .....	136.91	Aug. 12, 1891	Do.
79272	482	Paving .....	Alley .....	655.63	Aug. 17, 1891	Do.
79366	172	Sewer .....	do .....	251.40	Aug. 22, 1891	Do.
81677	545	Paving .....	do .....	523.07	Sept. 9, 1891	Do.
81808	*36	Sidewalk .....	M street .....	32.66	Oct. 20, 1891	Mar. 3, 1891
81897	*30	do .....	do .....	71.83	Oct. 28, 1891	Do.
81899	208	Paving .....	Alley .....	938.90	do .....	Do.
81898	*37	Sidewalk .....	M street .....	204.89	Oct. 29, 1891	Do.
81953	W. of 623	do .....	H street .....	47.83	Oct. 31, 1891	Do.
81954	{ 562 563 623 N. of 563	do .....	do .....	362.62	do .....	Do.
81955	{ 528 E. of 562 624 W. of 624	do .....	do .....	450.48	do .....	Do.
82297	{ 446 447 449 480 511 512	do .....	O street .....	687.61	Nov. 23, 1891	Do.
82314	690	do .....	B street .....	143.08	do .....	Do.
82437	544	Sewer .....	Alley .....	102.97	Dec. 5, 1891	Aug. 6, 1890
82438	643	do .....	do .....	136.85	do .....	Do.
82439	S. of 1019	do .....	G street .....	54.19	do .....	Do.
82545	841	do .....	Alley .....	145.59	do .....	Do.
82550	(†)	do .....	do .....	131.62	Dec. 8, 1891	Do.
82555	177	do .....	do .....	382.21	do .....	Do.
82562	193	Paving .....	do .....	338.28	Dec. 9, 1891	Mar. 3, 1891
82560	522	Sewer .....	N and Fourth street ..	188.38	do .....	Aug. 6, 1890
82640	211	Paving .....	Alley .....	798.92	Dec. 15, 1891	Mar. 3, 1891
82619	211	Sewer .....	do .....	327.11	do .....	Aug. 6, 1890
82610	280	do .....	do .....	240.04	Dec. 16, 1891	Do.
82641	282	Paving .....	do .....	481.41	do .....	Mar. 3, 1891
82620	368	Sewer .....	do .....	269.86	do .....	Do.
82644	370	Paving .....	do .....	277.29	do .....	Do.
82642	579	do .....	do .....	528.50	do .....	Do.
82654	539	Sewer .....	do .....	365.59	do .....	Do.
82658	247	Paving .....	do .....	2,519.06	Dec. 17, 1891	Do.
82665	618	do .....	do .....	259.35	Dec. 18, 1891	Do.
82664	387	do .....	do .....	453.45	do .....	Do.
82681	557	Sewer .....	Pierce street .....	66.57	do .....	Do.
82691	1051	do .....	Florence place .....	345.85	Dec. 21, 1891	Do.
82692	624	Sidewalk .....	East side of First street ..	122.17	do .....	Do.
82682	504	Paving .....	Alley .....	376.43	do .....	Do.
82701	413	Sewer .....	do .....	140.30	Dec. 28, 1891	Do.
82712	*52	do .....	N street .....	227.38	do .....	Do.
82711	S. of 990	do .....	South Carolina avenue....	148.90	do .....	Do.
82763	205	do .....	Alley .....	132.92	Jan. 4, 1892	Do.
82757	497	do .....	do .....	233.09	Jan. 5, 1892	Do.
83781	{ *16 14	do .....	{ M street, Thirty-third street, and West Market space.	834.04	Jan. 7, 1892	Do.

\* Georgetown.

† Block 2, Howard University.



APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892.—Continued.

File No.	Square.	Work.	Location	Amount.	Entered of record.	Act approved.
82836	192	Sewer	A -	\$125.77	Jan. 7, 1892	Mar. 3, 1891
82837	132	do		124.73	do	Do.
82782	282	do		235.82	do	Do.
82783	780	do		406.36	do	Do.
83446	192	do		297.48	Jan. 12, 1892	Do.
83361	193	Sidewalk		234.50	do	Do.
83404	1010	Sewer		83.07	Jan. 18, 1892	Do.
83402	778	do		54.43	do	Do.
83403	983	do		382.68	do	Do.
83430	( )	do	Howard Avenue	191.66	do	Do.
83432	1019	do		106.14	do	Do.
83431	195	do		124.43	Jan. 19, 1892	Do.
83429	( )	Paving		302.81	do	Do.
83452	829	do		851.54	Feb. 4, 1892	Do.
83465	551	do		2,434.54	do	Do.
83449	858	do		1,764.21	do	Do.
83644	172	do		1,686.22	do	Do.
84125	247	Sewer		75.32	Feb. 10, 1892	Do.
84161	818	Paving		553.97	do	Do.
84192	701	Roadway		195.58	Feb. 15, 1892	Do.
84193	686	Paving		245.95	do	Do.
84191	106	Sidewalk		702.20	Feb. 16, 1892	Do.
84216	554	Sewer	Alley	420.64	Feb. 18, 1892	Do.
84220	310	do		234.90	do	Do.
84564	721	Paving		112.34	Feb. 26, 1892	Do.
85007	551	Sewer		314.00	Mar. 5, 1892	Do.
85052	500	Paving		300.31	Mar. 14, 1892	Do.
85753	182	do		52.00	Mar. 23, 1892	Do.
85807	807	Sewer		61.13	do	Do.
85754	196	Sidewalk		125.97	do	Do.
85875	4	Sewer		21.31	do	Do.
85872	762	Sidewalk		74.79	Mar. 24, 1892	Do.
85951	214			62.25	do	Do.
85952	216			181.24	Mar. 31, 1892	Do.
85952	197			322.70	Apr. 1, 1892	Do.
86204	12	Paving		339.97	Apr. 9, 1892	Do.
86507	132			72.67	Apr. 26, 1892	Do.
86508	132			20.49	do	Do.
86685	132			24.78	May 7, 1892	Do.
86920	132			95.52	May 23, 1892	Do.
86921	132			15.73	do	Do.
86922	132			84.70	do	Do.
86923	132			19.69	do	Do.
86924	132			108.78	do	Do.

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them. The list includes names such as "John A. Smith", "John B. Smith", "John C. Smith", "John D. Smith", "John E. Smith", "John F. Smith", "John G. Smith", "John H. Smith", "John I. Smith", "John J. Smith", "John K. Smith", "John L. Smith", "John M. Smith", "John N. Smith", "John O. Smith", "John P. Smith", "John Q. Smith", "John R. Smith", "John S. Smith", "John T. Smith", "John U. Smith", "John V. Smith", "John W. Smith", "John X. Smith", "John Y. Smith", and "John Z. Smith".

2000 & 10000 Park.  
 2000 & Howard University.

Howard University.

## APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892—Continued.

File No.	Square.	Work.	Location.	Amount.	Entered of record.	Act approved.
86925	1, 034	Sidewalk .....	Thirteenth street .....	\$82. 06	May 23, 1892	Mar. 3, 1891
86928	514	Paving .....	Alley .....	226. 95	May 25, 1892	Do.
86972	890	do .....	do .....	878. 40	do .....	Do.
86987	111	Sidewalk .....	Twentieth street and Connecticut avenue.	165. 08	May 26, 1892	Do.
86994	290	Sidewalk .....	E street .....	1, 512. 90	May 28, 1892	Do.
	291					
	321					
	322					
	347					
	348					
	377					
	378					
	406					
	407					
86993	(*)	do .....	Florida avenue .....	195. 42	May 31, 1892	Do.
87043	737	Sewer .....	Second street .....	386. 89	June 3, 1892	Do.
87456	217	Sidewalk .....	K street .....	581. 61	June 16, 1892	Do.
87584	(†)	Paving .....	Alley .....	477. 05	June 29, 1892	Do.
Total .....				51, 413. 91		

\*Wright and Cox' subdivision to Prather's subdivision.  
† Block 2, Howard University.

## APPENDIX VIII.—Old Corporation Assessments canceled by decrees of the Supreme Court of the District of Columbia in certiorari.

File No.	Square.	Lot.	Amount.
63866	817	4	\$138. 51
63866	312	1	299. 79
63866	312	2	54. 50
69180	395	30	241. 83
69180	982	9	154. 72
69288	172	10	236. 53
69288	172	10	44. 66
69471	172	11	112. 07
69572	117	23	145. 04
69572	117	23	49. 18
69572	140	15	136. 74
70243	38	1	63. 65
70243	38	1	22. 41
70802	391	2	509. 51
70802	391	2	610. 47
70811	140	18	277. 35
70811	140	18	223. 20
70962	511	19	49. 64
70962	511	19	54. 78
70965	511	20	49. 64
70965	511	20	54. 78
74050	477	1	334. 74
74051	1, 074	14	45. 81
74051	1, 074	15	48. 14
74051	1, 074	16	69. 22
74052	76	B	54. 40
74052	76	C	54. 40
74052	76	D	54. 40
74052	76	E	54. 40
74052	76	F	54. 40
74052	76	G	57. 60
74053	172	9	133. 19
74053	172	9	133. 28
74055	649	11	76. 80
74055	649	12	77. 86
74055	649	13	51. 01
74055	649	14	51. 01
74055	649	15	57. 86
74055	649	16	83. 32
74056	943	1	148. 29
74772	16	2	2. 00
74772	16	2	108. 94
74772	16	2	178. 48



## APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892—Continued.

File No.	Square.	Work.	Location.	Amount.	Entered of record.	Act approved.
82836	192	Sewer	Alley	\$125.77	Jan. 7, 1892	Mar. 3, 1891
82835	132	do	do	124.73	do	Do.
82782	282	do	do	235.82	do	Do.
82783	780	do	do	466.36	do	Do.
83343	192	do	do	297.48	Jan. 12, 1892	Do.
83363	193	Sidewalk	Q street	234.50	do	Do.
83363	194					
83404	1010	Sewer	Twelfth street	83.07	Jan. 18, 1892	Do.
83402	778	do	Fourth street	54.43	do	Do.
83403	983	do	Eleventh street	382.68	do	Do.
83430	(*)	do	Howard avenue	191.66	do	Do.
83432	1019	do	Thirteenth street	166.14	do	Do.
83431	195	do	P street	124.43	Jan. 19, 1892	Do.
83429	(†)	Paving	Alley	302.81	do	Do.
83452	829					
83465	551	do	do	851.54	Feb. 4, 1892	Do.
83449	858	do	do	2,434.54	do	Do.
83644	172	do	do	1,764.21	do	Do.
84125	247	Sewer	do	1,686.22	do	Do.
84161	818	Paving	do	75.32	Feb. 10, 1892	Do.
84192	701	Roadway and sidewalk.	One-half street	553.97	do	Do.
				105.58	Feb. 15, 1892	Do.
84193	686	Paving	Alley	1,245.95	do	Do.
	85					
	86					
84191	106	Sidewalk	Nineteenth street	702.20	Feb. 16, 1892	Do.
	107					
	117					
	118					
	140					
84216	534	Sewer	Alley	430.64	Feb. 18, 1892	Do.
84220	310	do	Q and Eleventh streets	203.90	do	Do.
84564	231	do	Fourteenth street	112.34	Feb. 26, 1892	Do.
85307	721	Paving	Alley	614.00	Mar. 5, 1892	Do.
85652	551	Sewer	do	300.31	Mar. 14, 1892	Do.
85764	560	Paving	do	53.00	Mar. 23, 1892	Do.
85753	192	do	do	951.13	do	Do.
85807	867	Sewer	do	135.97	do	Do.
85754	96	Sidewalk	Twenty-eighth street	21.31	do	Do.
85875	4	Sewer	Alley	74.79	Mar. 24, 1892	Do.
85872	762	Sidewalk	Pennsylvania avenue	483.25	do	Do.
	214					
85951	215	do	L street	161.24	Mar. 31, 1892	Do.
	216					
	217					
85952	197	do	do	202.70	Apr. 1, 1892	Do.
	198					
	2					
	3					
	4					
	5					
	7					
	8					
86264	13	Plank sidewalk.	Brookland	639.07	Apr. 9, 1892	Do.
	14					
	22					
	23					
	24					
	25					
	30					
	31					
	32					
86507	(§)	Sewer	Alley	73.47	Apr. 26, 1892	Do.
86508	(  )	do	Wilson street	210.49	do	Do.
86685	495	Sidewalk	F street	274.76	May 7, 1892	Do.
86926	496					
	283	do	Massachusetts avenue	65.08	May 23, 1892	Do.
	360					
	361					
86921	362	do	Ninth street	657.19	do	Do.
	363					
	364					
	365					
	366					
86922	366	do	O street	264.50	do	Do.
86927	367	do	G street	42.49	do	Do.
86924	375	do	F street	106.26	do	Do.
	104					

\* Block 4, Howard University.

† Georgetown.

|| Block 18, Howard University.

† Block 3, LeDroit Park.

§ Block 2, Howard University.

## APPENDIX VII.—Statement of assessments made under the "compulsory permit" system for the year ending June 30, 1892—Continued.

File No.	Square.	Work.	Location.	Amount.	Entered of record.	Act approved.
86925	1, 034	Sidewalk .....	Thirteenth street .....	\$82. 06	May 23, 1892	Mar. 3, 1891
86928	514	Paving .....	Alley .....	226. 95	May 25, 1892	Do.
86972	890	do .....	do .....	878. 40	do .....	Do.
86987	111	Sidewalk .....	Twentieth street and Connecticut avenue.	165. 08	May 26, 1892	Do.
86994	290	Sidewalk .....	E street .....	1, 512. 90	May 28, 1892	Do.
	291					
	321					
	322					
	347					
	348					
	377					
	378					
	406					
	407					
86993	(*)	do .....	Florida avenue .....	195. 42	May 31, 1892	Do.
87043	737	Sewer .....	Second street .....	386. 89	June 3, 1892	Do.
87456	217	Sidewalk .....	K street .....	581. 61	June 16, 1892	Do.
87584	(†)	Paving .....	Alley .....	477. 05	June 29, 1892	Do.
Total .....				51, 413. 91		

\*Wright and Cox' subdivision to Prather's subdivision.  
†Block 2, Howard University.

## APPENDIX VIII.—Old Corporation Assessments canceled by decrees of the Supreme Court of the District of Columbia in certiorari.

File No.	Square.	Lot.	Amount.
63866	817	4	\$138. 51
63866	312	1	299. 79
63866	312	2	54. 50
69180	395	30	241. 83
69180	982	9	154. 72
69288	172	10	236. 53
69288	172	10	44. 66
69471	172	6	112. 07
69572	117	23	145. 04
69572	117	23	49. 18
69572	140	15	136. 74
70243	38	1	63. 65
70243	38	1	22. 41
70802	391	2	509. 51
70802	391	2	610. 47
70811	140	18	277. 35
70811	140	18	223. 20
70962	511	19	49. 64
70962	511	19	54. 78
70965	511	20	49. 64
70965	511	20	54. 78
74050	477	1	334. 74
74051	1, 074	14	45. 81
74051	1, 074	15	48. 14
74051	1, 074	16	69. 22
74052	76	B	54. 40
74052	76	C	54. 40
74052	76	D	54. 40
74052	76	E	54. 40
74052	76	F	54. 40
74052	76	G	57. 60
74053	172	9	133. 19
74053	172	9	133. 28
74055	649	11	76. 80
74055	649	12	77. 86
74055	649	13	51. 01
74055	649	14	51. 01
74055	649	15	57. 86
74055	649	16	83. 32
74056	943	1	148. 29
74772	16	2	2. 00
74772	16	2	108. 94
74772	16	2	178. 48



APPENDIX VIII.—*Old Corporation Assessments canceled by decrees of the Supreme Court of the District of Columbia in certiorari—Continued.*

File No.	Square.	Lot.	Amount.
75087	1060	1	\$70.16
74728	299	14	104.76
74728	299	15	42.02
75749	766	6	461.30
75819	247	9	199.77
76942	38	20	37.37
76947	144	6	182.44
77133	74	7	146.27
77135	203	65	156.20
77991	42	16	25.77
78489	104	1	82.38
78490	S. of 104	8	107.94
81680	800	1	594.19
81680	800	20	50.50
81683	265	9	64.53
81687	991	1	167.24
81687	991	1	218.70
81826	81	5	124.12
81878	65	1	125.28
81881	650	2	238.28
81943	580	1	277.01
81943	580	of 1	67.18
81943	580	14	52.93
81945	580	14	58.12
81945	580	14	61.98
81945	580	14	61.98
81945	580	14	104.39
82034	274	46	321.48
82412	436	8	273.78
82747	594	1	35.45
82749	218	18	71.71
82765	843	7	61.44
83922	792	9	234.45
83927	32	1	271.66
86526	86	4	\$36.30
86895	140	16	81.36
86918	4	3	110.92
86982	452	6	165.49
87047	630	3	48.73
87461	630	4	63.08
87461	411	19	57.88
87461	411	20	57.88
87462	411	21	70.24
	S. of 572	2	466.85
Total			12,024.16

APPENDIX IX.—*Old Corporation Assessments canceled by order of the Commissioners of the District of Columbia.*

File No.	Square.	Lot.	Amount.
57723			
65892			
66228	788	9	\$1.90
66228	518	6	2.81
66228	375	19	166.99
67982	375	20	166.99
70730	218	20	116.71
70834	510	H	47.99
70834	85	12	120.61
70835	85	12	99.86
70836	76	15	174.86
70836	76	16	266.11
70963	44	4	306.65
70963	44	4	104.18
70964	411	29	6.30
70964	411	30	6.30
70964	411	19	6.30
70966	411	20	6.30
71947	411	21	6.30
71947	692	12	57.19
	686	10	379.43
	686	10	87.98

APPENDIX IX.—*Old Corporation Assessments canceled by order of the Commissioners of the District of Columbia—Continued.*

File No.		Square.	Lot.	Amount.
71947		686	10	\$2. 00
71976	Erroneous; decree in equity	490	14	303. 34
71976	do	490	15	344. 84
71998	Omitted from collector's certificate	172	8	253. 11
72092	Omitted from tax sale	140	17	162. 28
74618	Erroneous; Supreme Court of District of Columbia	489	17	460. 13
74723	Omitted from tax sale	332	5	196. 64
74723	do	332	5	262. 65
74723	Omitted from tax sale	800	2	553. 77
74723	do	847	6	128. 53
74723	do	847	7	64. 27
75807		512	2	75. 00
75807		512	2	25. 00
76950	Omitted from tax sale	43	5	330. 49
76952	Exempt; public alley	749	6	17. 32
76965	Exempt; District of Columbia property	75	13	8. 34
77121	do	182	30	2. 00
77204	do	375	25	229. 63
77213	do	489	3	7. 82
77213	do	489	4	2. 80
77217	Exempt; public alley	236	18	30. 28
77219	Omitted from collector's certificate	397	3	1. 68
77221	do	452	5	1. 65
77222	do	S. of 1,039	3	50. 42
77235	do	489	12	1. 15
77235	do	489	12	1. 50
77351	do	41	15	153. 84
77591	do	488	2	1. 70
77634	Exempt; District of Columbia property	762	5	158. 38
77635	Omitted from collectors' certificate	465	75	1. 02
77636	do	460	(L) 3	3. 45
77661	do	475	8	1. 27
78011	do	118	(18) 9	2. 60
78011	do	118	(18) 9	1. 23
78523		992	17	179. 95
69286		754	6	365. 08
69286		754	7	246. 33
69286		754	8	266. 33
	Total			7, 029. 08



C.

# REPORT OF COLLECTOR OF TAXES.

OFFICE OF COLLECTOR OF TAXES,  
DISTRICT OF COLUMBIA,  
Washington, September 15, 1892.

GENTLEMEN: I have the honor to submit the following statement showing the amount of tax balances with which this office was debited at the beginning of the fiscal year commencing July 1, 1891. Also the amount of tax levies, real and personal, for the year ending June 30, 1892, together with the amount received for collection on account of the water fund, licenses, dog tax, fees, penalties, etc., and the amount collected on account of the same during the fiscal year ending June 30, 1892.

## GENERAL FUND.

	Dr.	Cr.
	To amount charged.	By amount collected.
To balance of taxes due July 1, 1891:		
Realty tax—		
For years 1845 to 1870.....		\$74.08
For year ending June 30—		
1872.....		87.70
1873.....		138.10
1874.....		163.12
1875.....		416.19
1876.....	\$91.98	422.52
1877.....	6,233.22	790.43
1878.....	1,365.56	557.59
1879.....	16,751.31	599.82
1880.....	2,207.01	696.38
1881.....	9,476.79	936.77
1882.....	19,979.36	836.67
1883.....	18,284.71	852.00
1884.....	13,884.95	901.16
1885.....	14,368.10	1,427.10
1886.....	15,118.47	1,614.26
1887.....	17,987.89	2,424.79
1888.....	18,459.70	4,219.07
1889.....	17,285.08	6,455.28
1890.....	27,133.31	23,620.58
1891.....	33,340.92	138,085.87
1892.....	60,553.53	
	202,233.82	
To amount of levy for year ending June 30, 1892.....	494,755.71	185,319.48
To amount collected in excess of what was charged to collector on account of general tax arrears 1845 to 1870.....	2 162,577.75	1,953,143.92
To amount collected in excess of what was charged to collector on account of assessment of general tax for year ending June 30—	74.08	
1872.....		87.70
1873.....		138.10
1874.....		71.14
Personal tax:		
For year ending June 30—		
1877.....		
1878.....		
1879.....		
1880.....	30,066.84	
1881.....	71,827.52	
1882.....	34,124.35	
1883.....	15,765.92	
1884.....	23,107.18	
1885.....	7,350.02	
1886.....	14,042.00	
1887.....	6,463.40	
1888.....	8,042.40	
1889.....	14,151.00	
1890.....	5,883.19	
1891.....		
1892.....		

## GENERAL FUND—Continued.

	Dr.		Cr.	
	To amount charged.		By amount collected.	
Personal tax—Continued.				
For year ending June 30—				
1889.....	\$5,608.03			
1890.....	6,599.98		\$405.75	
1891.....	12,927.88		4,863.77	
		\$255,959.71		\$5,269.52
To amount of levy for year ending June 30, 1892.....		180,366.11		168,491.93
To amount of penalty on taxes:				
Realty tax—				
For years 1845 to 1870.....			55.70	
For year ending June 30—				
1872.....			139.67	
1873.....			253.29	
1874.....	166.01		332.02	
1875.....	813.08		813.08	
1876.....	766.23		766.23	
1877.....	1,192.06		1,192.06	
1878.....	905.85		905.85	
1879.....	980.00		980.00	
1880.....	1,007.48		1,007.48	
1881.....	1,237.26		1,237.26	
1882.....	952.40		952.40	
1883.....	873.85		873.85	
1884.....	906.33		906.33	
1885.....	1,229.00		1,229.00	
1886.....	1,182.46		1,182.46	
1887.....	1,510.60		1,510.60	
1888.....	2,390.01		2,390.01	
1889.....	2,988.92		2,988.92	
1890.....	8,451.98		8,451.98	
1891.....	23,887.34		23,887.34	
1892.....	8,856.18		8,856.18	
		60,297.04		60,911.71
To amount of penalty on taxes collected in excess of what was charged to collector on account of assessment of general tax arrears, 1845 to 1870.....		55.70		
To amount of penalty on taxes collected in excess of what was charged to collector on account of general tax for the year ending June 30—				
1872.....		139.67		
1873.....		253.29		
1874.....		166.01		
Personal tax:				
For year ending June 30—				
1890.....	145.82		145.82	
1891.....	898.47		898.47	
1892.....	562.37		562.37	
		1,606.66		1,606.66
To amount of miscellaneous items, received for collection, viz:				
Washington redemption fund—				
Principal.....	\$2,689.71			
Interest.....	449.84			
		3,139.55		3,139.55
Special tax (corporation of Washington)—				
Principal.....	\$127.33			
Interest.....	26.53			
		153.86		153.86
Licenses.....	159,954.86		159,954.86	
Dog tax.....	13,833.19		13,833.19	
Permit fees.....	5,103.00		5,103.00	
Fees for certificates.....	3,995.50		3,995.50	
Advertising (1875 to 1892).....	1,073.70		1,073.70	
Advertising special assessments:				
1887.....	\$6.55			
1888.....	40.00			
1889.....	10.50			
		57.16		57.16
Police court fines:				
District of Columbia.....	46,105.28			
United States.....	15,031.32			
		61,136.60		61,136.60
Market rents:				
Eastern.....	3,450.00			
Western.....	6,290.00			
Georgetown.....	1,092.40			
Washington.....	7,500.00			
		18,332.40		18,332.40



## GENERAL FUND—Continued.

	Dr.	Cr.
	To amount charged.	By amount collected.
To amount of miscellaneous items, received for collection--Continued.		
Material furnished plumbers .....	\$4. 14	\$4. 14
Building permits .....	12,081. 67	12,081. 67
Inspecting and proving gas meters .....	401. 50	401. 50
Sale of old material .....	446. 80	446. 80
Pound fees .....	835. 75	835. 75
Rent of District of Columbia property .....	1,862. 50	1,862. 50
Judgment favor District of Columbia .....	60,860. 02	60,860. 02
Engineers' license .....	474. 00	474. 00
Recording tax sales .....	34. 05	34. 05
Sale of hay scales .....	769. 02	769. 02
Sale of fish stalls .....	564. 25	564. 25
Tax-sale surplus .....	110. 04	110. 04
Sale of sweepings .....	15. 62	15. 62
Conscience fund .....	1. 00	1. 00
Repair of lamps .....	13. 60	13. 60
Fees of supreme court .....	3,160. 30	3,160. 30
Investment .....	. 38	. 38
Fines in appeal cases .....	110. 00	110. 00
Interest .....	31. 25	31. 25
Forage .....	9. 74	9. 74
	\$348,565. 45	\$348,565. 45
Water fund:		
Watermain tax advertised—		
Principal .....	\$4,562. 67	
Interest .....	2,064. 56	
	6,627. 23	
Water rents, taps, permits, etc. ....	295,143. 86	
	301,771. 09	301,771. 09
To amount of increase in assessments as per assessors' certificates:	3,806,885. 21	3,025,079. 76
Realty .....	1,443. 05	
Personal .....	4,947. 22	
By amount of reductions in assessments as per assessors' certificates:	6,390. 27	
Realty tax .....		33,554. 87
Personal tax .....		1,081. 62
By balance of uncollected taxes:		34,636. 49
Realty .....		487,129. 26
Personal .....		266,429. 97
Total .....	3,813,275. 48	753,550. 23
		3,813,275. 48

## RECAPITULATION.

To amount collected on account of—	
Realty tax .....	\$2,138,463. 40
Personal tax .....	173,761. 45
Penalties .....	64,582. 93
Miscellaneous items .....	348,565. 45
Water fund .....	299,706. 53
To amount of reductions in assessments .....	\$3,025,079. 76
To amount of uncollected taxes .....	34,636. 49
Total .....	753,559. 23
	3,813,275. 48
By cash deposited United States Treasury .....	2,952,477. 64
By drawback certificates .....	72,549. 27
By tax-lien certificates .....	52. 85
By reduction in assessments .....	3,025,079. 76
By amount of uncollected taxes .....	34,636. 49
Total .....	753,559. 23
	3,813,275. 48
NOTE.—The following items in the above exhibit were collected through this office for the use of third parties holding the liens representing the taxes:	
Washington redemption fund, principal and interest .....	\$3,139. 55
Special taxes, principal and interest .....	153. 86
General taxes for years ending June 30, 1872, and 1873, respectively, principal and interest ..	278. 24
	3,571. 65

In addition to the receipts from taxes, etc., on account of the general fund, as shown by the foregoing statement, payments and deposits are received by this office on the following accounts, etc.:

## SPECIAL ASSESSMENTS.

For work done by the late board of public works:

Amount received .....	\$6,412.40
Received in payment:	
Bonds and interest .....	\$287.82
Drawbacks .....	1,590.71
Cash .....	3,804.69
By sale .....	729.18
	<u>6,412.40</u>
Condemnation of land for alleys .....	122.32
Costs .....	90.33
	<u>6,625.05</u>
Total .....	

## COMPULSORY PERMIT WORK.

For work done under this system for the improvement and repair of alleys, sidewalks, and sewers authorized under the following acts of Congress:

March, 1887 .....	\$128.84
July, 1888 .....	574.90
March, 1889 .....	8,367.36
August, 1890 .....	21,579.23
March, 1891 .....	17,649.19
	<u>\$48,299.52</u>
Deposits for work done under the permit system:	
Balance on hand July 1, 1891 .....	44,654.39
Collected July 1, 1891, to June 30, 1892 .....	196,716.27
	<u>241,370.66</u>
Disbursements .....	150,069.07
	<u>91,301.59</u>
Balance on hand July 1, 1892 .....	
The following amounts were deposited through this office to the credit of the respective funds:	
Repayments to appropriations .....	83,652.60
Poor fund .....	1,430.00
Policemen's fund .....	1,663.75
Firemen's fund .....	261.45
Wright's legacy .....	850.45
	<u>87,858.25</u>
Total .....	

There have been deposited with the collector during the past year by bidders for furnishing supplies, as required by law, subject to return upon order of the Engineer Commissioner. 127,250.00

The office of the collector of taxes, from the nature of its business, comes in immediate contact with the citizens of the District, and for this reason every facility should be given the public to transact its business with the least possible delay. Recognizing this fact, it has been my constant aim since assuming the duties of the office to increase its efficiency, and with this object in view I have annually submitted for the consideration of the Commissioners such recommendations as experience has taught me would accomplish this end, and have respectfully urged upon their attention the necessity of obtaining from Congress certain additions to the force and legislation whereby the duties of the office could be more satisfactorily performed and the defects of the laws in relation to taxation be cured or new laws be enacted where the old ones were found to be ineffectual. Good and sufficient reasons have been laid before the committees of Congress for the adoption of such legislation, but little encouragement has been received. Each year increases the urgency for better facilities, owing to the increase of business, and for this reason I am constrained to renew the recommendations heretofore made for an increased force and legislation necessary to remedy the defective tax laws.

The present force is totally inadequate to the prompt and efficient transaction of the large and daily increasing volume of business of this office. During the past busy season of July and August we were compelled to detail a clerk to act as bank messenger, thus seriously crippling the already small force, and the regular business of the office was



necessarily allowed to run behind several days, much to the inconvenience and annoyance of the public, and this notwithstanding the fact that we worked after hours every day. In this connection I desire to say that in my judgment the clerks in the office of the collector of taxes are not excelled by a similiar number of clerks in any office of the District government. As a rule they are very quick and remarkably accurate, and obliging to a surprising degree. No matter what duties I impose upon them, whether during or after office hours, it is always done well and cheerfully; in fact, from messenger to cashier, I have a thoroughly efficient and satisfactory corps of clerks, and it seems to me like imposing upon good and willing clerks to require of them such onerous extra duties as we are compelled to do in order to keep up the work of the office. Even with long hours and devotion to duty we will not with our present force, if business continues to increase, be able to keep the work up much longer. With this explanation I again ask that you will indorse my recommendation to Congress that a deputy collector at \$2,000, assistant cashier at \$1,600, and a bank messenger at \$1,200 per annum be added to the present force of this office. This will only make \$18,000 for office expenses (except contingent), which appears to be a very small amount when we take into consideration the large amount of business transacted and the accuracy with which it is necessary to conduct the same. Unless the addition to our force asked for is allowed the business of the office must be conducted in a hurried manner, increasing the liability to error, and thus resulting in inconvenience and annoyance to the public. We want additional force; not simply an increase in numbers, but accurate, reliable, efficient clerks.

In all former reports great stress was laid upon the importance of obtaining from Congress legislation whereby the defects in the laws relating to taxation might be cured. In briefly alluding to these measures again, I beg to say that they have not lost any of their importance by the delay of Congress, but, on the contrary, the necessity of some action in this regard becomes more apparent every day. It is useless to annually repeat the many reasons for this legislation, as the fact is patent that the revenues of the District are seriously curtailed by the neglect of Congress to give us a new tax law and authority to reassess property, upon which, for various reasons, the courts have enjoined the collection of the tax by the District. These measures, affecting as they do the revenues of the District, are of paramount importance, and for that reason I call your attention to them, to the exclusion of other important matters, and respectfully request that an effort be made for their adoption.

The success attending our efforts for the collection of overdue personal tax justifies us in asking a renewal of the appropriation for this purpose, and with the view of largely augmenting our receipts from this source I respectfully ask that this appropriation be increased to \$3,000.

Respectfully submitted.

E. G. DAVIS,  
*Collector of Taxes, District of Columbia.*  
Hon. COMMISSIONERS DISTRICT OF COLUMBIA.

## D.

### REPORT OF THE AUDITOR.

OFFICE OF THE AUDITOR  
OF THE DISTRICT OF COLUMBIA,  
Washington, November 23, 1892.

GENTLEMEN: I have the honor to submit herewith a series of statements marked from A to F, respectively, showing the receipts and expenditures and general financial condition of the government of the District of Columbia for the fiscal year which ended June 30, 1892.

A is an exhibit of the revenue account showing, first, the cash surplus in the Treasury of the United States, July 1, 1891, together with the receipts from one-half of lapsed appropriations credited back to the general fund, taxes, licenses, and all other distinctively District of Columbia sources of revenue, and, secondly, the amount appropriated therefrom to meet the half of appropriations for which the District is liable.

B is a general statement of appropriations. It shows, first, the balance of appropriations unexpended and subject to requisition June 30, 1891, the total amount appropriated for the year under various acts of Congress, and repayments to appropriations for the same period; secondly, the amounts advanced therefrom by the Secretary of the Treasury upon requisitions; and, thirdly, the balance of appropriations subject to requisition in the Treasury of the United States June 30, 1892.

C is a classified statement of expenditures, consisting of payments by the Commissioners in checks drawn upon the Treasurer of the United States, with whom, under the law, all moneys advanced upon requisition are deposited, and of requisitions approved by the Commissioners in favor, respectively, of the officers of various charitable institutions and the Treasurer of the United States as *ex officio* commissioner of the sinking fund on account of the principal and interest of the bonded debt.

D is a summary of the account which the Commissioners, in their capacity as disbursing officers, keep with the Treasurer of the United States. It shows the deposits made by them of the amounts received from requisitions upon the Secretary of the Treasury on account of the general expenses of the District of Columbia; checks drawn against the same by them and the balance, subject to their check, remaining with the Treasurer June 30, 1892.

E is a statement of the water-fund revenues and appropriations.

The revenue account shows the balance on hand July 1, 1891, and the collections from rents and water-main taxes during the year; the amount appropriated therefrom for the expenses of the service, and the balance on hand June 30, 1892, being the surplus in excess of the amount appropriated.

The appropriation account shows, first, the balance of appropriations unexpended July 1, 1891, to which are added the appropriations made during the year; secondly, the amount drawn upon requisition, and, thirdly, the balance of appropriations subject to requisition June 30, 1892.



It is a summarized statement of the various trust funds, showing balances on hand July 1, 1891, amounts collected and deposited in the Treasury of the United States during the year, advances made to the Commissioners upon their requisitions, and balances subject to requisition remaining in the Treasury June 30, 1892.

Among the receipts will be observed the sum of \$60,860.02, representing the principal, interest, and costs of the judgment rendered against the Washington and Georgetown Railroad Company in the local courts, which was set aside, on appeal, by the Supreme Court of the United States, but whose payment was directed, under penalty of forfeiture of charter, by act of Congress approved March 3, 1891.

The one-half of appropriations chargeable to the District of Columbia exceeds the revenues by \$5,088.04. Inasmuch, however, as there will be at least \$25,000 of the amount appropriated that will not be expended it is apparent that instead of a deficit of \$5,088.04 there is really a balance of \$20,000 on the credit side of the account.

In accordance with your instructions, the plan of semimonthly payments to laborers has been adopted, much to the satisfaction of this class of employes. They are now paid in cash and upon the line of their work, and, as just stated, at intervals of but two weeks—a marked improvement upon the former method, which required them, often at great personal inconvenience and loss of time, to repair to the District building and receive their pay in checks which were converted into cash with difficulty and frequently at the sacrifice of a portion of their hard-earned wages.

In my last report I had the honor to acquaint you with the necessity of an increase of the clerical force, which is inadequate to the requirements of the business of the office. I beg again to bring this vitally important matter to your attention, in the hope that at the coming session of Congress legislation to this end may be secured and provision made for the employment of at least one more clerk. The duties of the disbursing clerk are of such a character as to call him constantly to the field and to leave to him but little time for assisting in the general work of the office. Since 1884 the volume of business has increased nearly 100 per cent; yet the force employed, by reason of the loss of the services of the disbursing clerk, as before stated, is one less than it was in 1884.

In consequence of this pressure, I have not been able to carry the audit of the collector's account beyond the comparison of the coupons with the daily report of cash received. While this is, of course, the more important part of the work, yet that which has been left undone, namely, the examination of the collector's cash books, to see that the entries therein made have been properly posted to the individual accounts in the tax ledgers, is scarcely of less value.

During the year eight thousand three hundred and forty-four claims have been audited, in payment of which 29,684 checks have been drawn. I can not close without paying cheerful tribute to the worth and efficiency of the gentlemen associated with me in the office. Their zeal and fidelity entitle them to the highest commendation.

With an abiding sense of gratitude for the constant and generous consideration which you have manifested for me, I am,

Very respectfully,

J. T. PETTY,  
*Auditor, District of Columbia.*

THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

## A.—Statement of revenues of the District of Columbia and the appropriations by the United States for the fiscal year ended June 30, 1892.

From what source.	Detail.	Total.	Aggregate.
<b>REVENUES OF THE DISTRICT OF COLUMBIA.</b>			
Balance to the credit of the District of Columbia in the United States Treasury, available for appropriation, July 1, 1891 .....			\$112,210.64
Unexpended balances of appropriations carried to the credit of the general fund of District of Columbia (half) .....			41,522.74
General taxes, including penalties .....	\$2,325,929.97		
Licenses .....	159,954.86		
		\$2,485,884.83	
Eastern market, rents .....	3,450.00		
Western market, rents .....	6,290.00		
Georgetown Market, rents .....	1,092.40		
Washington Market Company, franchise rental .....	7,500.00		
		18,332.40	
Rent of hay-scales .....	769.02		
Rent of wharves, street termini and buildings .....	1,893.75		
Rent of fish wharves and stalls .....	564.25		
		3,227.02	
Fines, police court, United States cases .....	15,031.32		
Fines, police court, District of Columbia cases .....	46,105.28		
Fines, criminal court .....	3,160.30		
Fines, appeal cases, through attorney District of Columbia .....	110.00		
		64,406.90	
Fees for tax certificates .....	3,995.50		
Permit fees for sewers and gas .....	5,103.00		
Building permits .....	12,117.67		
Tax on dogs .....	13,833.19		
Pound fees .....	835.75		
Fees for inspecting gas and meters .....	401.50		
Engineers' licenses .....	438.00		
Material furnished .....	4.14		
Sale of old material .....	266.80		
Labor and sale of products, Reform School .....	2,035.66		
Judgment, Washington and Georgetown Railroad Company .....	60,860.02		
Advertising .....	1,130.86		
Recording tax sale .....	34.05		
Sale of frame cottage, Lincoln avenue and T street .....	180.00		
Forage for estray animals .....	9.74		
Replacing street lamps .....	13.60		
Street sweepings .....	15.62		
Investment improperly deposited .....	.38		
Conscience fund .....	1.00		
		101,276.48	
			2,673,127.63
<b>Total revenues of the District of Columbia .....</b>			<b>2,826,861.01</b>
<b>APPROPRIATIONS BY THE UNITED STATES.</b>			
General expenses of the District of Columbia, 1892 (act Mar. 3, 1891) .....	5,313,398.09		
National Zoological Park (sundry civil act, Mar. 3, 1891) .....	50,500.00		
	5,363,898.09		
One-half of which, payable by the District of Columbia, is .....		2,681,949.05	
Rock Creek Park (act Sept. 27, 1890). First installment payable by the District of Columbia .....		150,000.00	
			2,831,949.05
<b>Excess of appropriations by the United States over the revenues of the District of Columbia .....</b>			<b>5,088.04</b>

*B.—Statement of appropriations and advances by the United States to the District of Columbia for the fiscal year ended June 30, 1892.*

For what purpose.	Detail.	Total.	Aggregate.
APPROPRIATIONS.			
Balance to the credit of the District of Columbia in the United States Treasury July 1, 1891, subject to requisition on account of appropriations for the year 1891 and prior years .....		\$617, 350. 61	
General expenses of the District of Columbia, 1892 (act Mar. 3, 1891).....	\$5, 313, 398. 09		
National Zoölogical Park (sundry civil act Mar. 3, 1891)....	50, 500. 00		
Rock Creek Park (act Sept. 27, 1890).....	150, 000. 00		
		5, 513, 898. 09	
Repayments to appropriations for the year —			
1892 .....	358, 987. 09		
1891 .....	141, 760. 95		
1890 .....	24, 006. 12		
1889 .....	923. 23		
1888 .....	128. 38		
1885 .....	. 30		
		525, 806. 07	
			\$6, 657, 054. 77
ADVANCES.			
Amount advanced by the Secretary of the Treasury upon requisition on account of appropriations for the year —			
1892 .....	5, 643, 198. 09		
1891 .....	496, 029. 56		
1890 .....	421. 09		
		6, 139, 648. 74	
Balances of appropriations which, not having been used within the limit of three years fixed by law, are now returned in equal parts to the United States surplus fund and to the District of Columbia general fund, respectively .....		83, 045. 48	
			6, 222, 694. 22
Balance to the credit of the District of Columbia in the United States Treasury June 30, 1892, subject to requisition, on account of appropriations for the year 1892 and prior years.....			434, 360. 55

*C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892.*

Title of appropriations.	Detail.	Total.	Aggregate.
IMPROVEMENT OF STREETS, AVENUES, ALLEYS, AND ROADS.			
Work on sundry avenues and streets, 1892 .....			
Work on streets and avenues:	\$319, 205. 25		
Georgetown schedule, 1891 .....			
Northwest schedule, 1891 .....	16, 149. 25		
Southwest schedule, 1891 .....	70, 723. 18		
Southeast schedule, 1891 .....	15, 602. 45		
Northeast schedule, 1891 .....	52, 268. 18		
	20, 172. 80		
Total for improvement of streets and avenues.....		\$494, 121. 11	
Work on suburban streets and roads:			
Paving Brightwood avenue, 1892 .....	18, 744. 92		
Paving Brightwood avenue, 1891 .....	6, 190. 91		
Paving Fourteenth street extended 1892 .....	15, 145. 32		
Paving Fourteenth street extended, 1891 .....	12, 314. 29		
Paving Maple avenue, 1892 .....	11, 583. 04		
Paving Maple avenue, 1891 .....	162. 17		
Paving Nichols avenue, 1892 .....	7, 307. 55		
Paving Nichols avenue, 1891 .....	6, 242. 98		
Paving Linden street, 1892 .....	1, 999. 83		
Paving Linden street, 1891 .....	4, 999. 91		
Paving Clifton street, 1892 .....	5, 995. 04		
Paving Euclid street, 1892 .....	3, 896. 50		
Paving Larch street, 1892 .....	1, 940. 28		
Paving R street extended, 1891 .....	458. 34		
Total for paving suburban streets and roads.....		96, 981. 08	



## C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
<b>IMPROVEMENT OF STREETS, AVENUES, ALLEYS, AND ROADS—continued.</b>			
Work on suburban streets and roads:			
Grading and regulating—			
Fourth street extended, 1892.....	\$1,905.64		
Massachusetts avenue extended, 1892.....	6,425.73		
Pennsylvania avenue extended, 1891.....	3,670.57		
Illinois avenue, 1892.....	3,999.12		
Howard avenue, 1891.....	154.06		
Lincoln avenue, 1891.....	1,286.72		
Brightwood avenue, 1891.....	6,890.64		
Connecticut avenue extended, 1891.....	2,565.40		
Brentwood avenue, 1891.....	472.68		
California avenue, 1891.....	498.34		
Laurel avenue, 1891.....	355.42		
Sixteenth street extended, 1892.....	13,568.00		
First street extended, 1891.....	688.75		
Eighteenth street extended, 1891.....	7,321.24		
Seventeenth street extended, 1891.....	509.40		
Linden street, 1892.....	5,940.79		
Fillmore street, 1892.....	1,360.63		
Pierce street, 1892.....	1,994.89		
Kenesaw and Wallach streets, 1891.....	676.34		
North Capitol street extended, 1891.....	1,635.67		
Streets in Takoma Park, 1891.....	1,810.27		
Naylor's road, 1892.....	2,699.73		
Bunker Hill road, 1891.....	4,989.70		
Anacostia road, 1891.....	9,818.94		
Naylor's road, 1891.....	2,474.38		
New-cut road, 1891.....	2,696.45		
Ridge and Loughborough roads, 1891.....	4,989.55		
Total for grading, etc., suburban streets and roads.....		\$91,399.05	
Grading sundry streets, alleys, and roads:			
1892.....	13,802.30		
1891.....	6,371.40		
Total for above grading.....		20,173.70	
Surveys, subdivision of lands:			
1892.....	4,269.36		
1891.....	1,011.69		
Total for above surveys.....		5,281.05	
Permit work:			
Sidewalks and alleys, 1892.....	171,329.64		
Sidewalks and alleys, 1891.....	27,246.13		
Paving and curbing roadways, 1892.....	9,540.23		
Paving and curbing roadways, 1891.....	38,567.50		
Total for permit work.....		246,683.50	
Condemnation of streets, roads, and alleys:			
1892.....	271.12		
1891.....	26.25		
Total for expenses of condemnations.....		297.37	
Aggregate for improvement of streets, etc.....			\$954,936.86
<b>STREETS AND ROADS, CARE, LIGHTING, AND CLEANING.</b>			
Repairs to concrete pavements:			
1892.....	147,561.11		
1891.....	2,251.31		
Total.....		149,812.42	
Cleaning streets, avenues, and alleys:			
1892.....	106,286.47		
1891.....	5,885.37		
Total.....		112,171.84	
Repairs to streets, avenues, and alleys:			
1892.....	43,672.62		
1891.....	1,423.51		
Total.....		45,096.13	
Repairs to county roads:			
1892.....	52,906.79		
1891.....	11,680.40		
Total.....		64,587.19	

## 52 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
STREETS AND ROADS, CARE, LIGHTING AND CLEANING—cont'd.			
Parking commission, care of trees and parks:			
1892.....	\$17,742.30		
1891.....	1,255.67		
Total.....		\$18,997.97	
Street lamps:			
Care, gas lighting, and erection of, 1892.....	118,140.43		
Care, gas lighting, and erection of, 1891.....	19,062.79		
Electric lighting, 1892.....	53,739.15		
Electric lighting, 1891.....	3,764.60		
Total.....		194,706.97	
Aggregate for streets and roads.....			\$585,372.52
SEWERS.			
Cleaning and repairing sewers and basins:			
1892.....	41,534.48		
1891.....	2,468.90		
Total.....			
Replacing obstructed sewers:		44,003.38	
1892.....	21,732.10		
1891.....	2,642.23		
Total.....			
Constructing main and pipe sewers:		24,374.33	
1892.....	90,109.75		
1891.....	33,689.04		
Total.....			
Construction of suburban sewers:		123,798.79	
1892.....	50,946.61		
1891.....	20,071.72		
Total.....			
Gauging sewers and rainfall:		71,018.33	
1892.....	2,116.53		
1891.....	218.13		
Total.....			
Condemnation of rights of way for sewers:		2,334.66	
1892.....	101.00		
1891.....	41.30		
Total.....			
Erection of brick shed for cement for sewers, 1891.....		142.30	
Aggregate for sewers.....		210.68	
BRIDGES.			
Ordinary care of bridges:			
1892.....	4,012.96		
1891.....	346.30		
Total.....			
Construction and repairs of bridge:		4,359.26	
1892.....	11,145.52		
1891.....	3,311.42		
Total.....			
Bridge across Eastern Branch at Benning's road, 1892.....		14,456.94	
Aggregate for bridges.....		58,301.86	265,882.47
SALARIES OF OFFICERS AND EMPLOYÉS.			
Executive office, 1892.....		42,073.01	
Auditor's office, 1892.....		16,700.00	
Assessor's office, 1892.....		26,000.00	
Collector's office, 1892.....		17,200.00	
Attorney's office, 1892.....		8,600.00	
Pay of coroner.....		1,800.00	
Market masters and laborers, 1892.....		3,600.00	
Engineer's office, 1892.....		41,856.72	
Board to examine steam engineers, 1892.....		900.00	77,118.00

C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
<b>SALARIES OF OFFICERS AND EMPLOYÉS—continued.</b>			
Superintendent of charities, 1892 .....		\$3,000.00	
Sewer division, 1892 .....		22,067.33	
Sinking fund office, 1892.....		2,400.00	
Aggregate for salaries of officers .....			\$186,197.06
<b>CONTINGENT AND MISCELLANEOUS EXPENSES.</b>			
Rent of offices, District building, 1892 .....	\$3,300.00		
Rent of attorney's office—			
1892 .....	75.00		
1891 .....	8.33		
Total .....		3,383.33	
Advertising arrears of taxes, 1892.....	5,067.74		
General advertising—			
1892 .....	634.77		
1891 .....	754.49		
Total .....		6,457.00	
Judicial expenses—			
1892 .....	271.71		
1891 .....	1.75		
Total .....		273.46	
Coroner's office, expenses of, including autopsies, jury fees, etc.:			
1892 .....	745.00		
1891 .....	36.00		
Total .....		781.000	
Engineers' stables, care of horses and stable supplies—			
1892 .....	5,044.85		
1891 .....	1,100.57		
Total .....		6,145.42	
Contingent expenses of offices, including police court and health department—			
1892 .....	23,192.41		
1891 .....	603.38		
Total .....		23,795.79	
Indexing old records, 1892.....		1,408.22	
Repairing book of arrears of taxes, 1892 .....		5,906.93	
Collection of taxes by distraint, 1892.....		1,495.00	
Completion of the reproduction of old administration and guardian dockets in register of wills office, 1892.....		1,000.00	
Horse, carriage, harness, and care of same for disbursing clerk, 1892.....		747.22	
Care of morgue, for coroner's office, 1892.....		287.10	
Aggregate for contingent expenses .....			51,680.47
<b>METROPOLITAN POLICE.</b>			
Salaries of officers and members—			
1892 .....	464,105.97		
1891 .....	122.26		
1890 .....	61.83		
Total .....		464,290.06	
Rent of headquarters and substation—			
1892 .....	900.00		
1891 .....	300.00		
Total .....		1,200.00	
Repairs to station houses—			
1892 .....	2,460.27		
1891 .....	8.50		
Total .....		2,468.77	
Contingent expenses—			
1892 .....	14,001.33		
1891 .....	554.64		
Total .....		14,555.97	



## 54 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
METROPOLITAN POLICE—continued.			
Fuel for station houses, 1892.....		\$1,844.74	
Patrol wagon and harness, 1892.....		353.00	
Police signal and telephone system, including horses, wagons, and harness for fifth and eighth precincts, 1891.....		8,373.00	
Purchase of site and erection of station house in Georgetown, 1892.....		28,999.27	
Aggregate for police department.....			\$522,084.81
FIRE DEPARTMENT.			
Pay of officers and members, 1892.....		109,195.16	
Repairs to engine houses:			
1892.....	\$2,926.20		
1891.....	9.00		
Total.....		2,935.20	
Repairs to apparatus and new appliances:			
1892.....	2,814.13		
1891.....	726.75		
Total.....		3,540.88	
Fuel for engine houses and apparatus:			
1892.....	1,725.00		
1891.....	28.20		
Total.....		1,753.20	
Purchase of horses:			
1892.....	3,580.00		
1891.....	275.00		
Total.....		3,855.00	
Forage:			
1892.....	5,501.54		
1891.....	69.84		
Total.....		5,571.38	
Contingent expenses:			
1892.....	6,958.97		
1891.....	645.55		
Total.....		7,604.52	
Purchase of hose, 1892.....		3,000.00	
Exchanging engine, 1892.....		3,900.00	
Addition to engine house No. 8, 1892.....		786.59	
Two turntable trucks, 1891.....		6,924.00	
Purchase of site and erection of engine house in a central location, and furnishing same, 1891.....		8,122.62	
Aggregate for fire department.....			157,188.55
TELEGRAPH AND TELEPHONE SERVICE.			
Pay of employes, 1892.....		10,800.00	
General supplies, repairs, rent of telephones, extra labor, etc., 1892.....	6,963.01		
General supplies, repairs, rent of telephones, extra labor, etc., 1891.....	1,125.38		
Total.....		8,088.39	
Aggregate for telegraph and telephone service.....			18,888.39
POLICE COURT.			
Pay of judges and employes, 1892.....	15,473.95		
Pay of justices of the peace, acting judge, 1892.....	300.00		
Total.....		15,773.95	
Witness fees, 1892 (payment of witnesses):			
1891.....	8,100.00		
1890.....	65.00		
1889.....	17.50		
Total.....		8,200.00	
Rent of property adjoining police court building:			
1892.....	600.00		
1891.....	50.00		
Total.....		650.00	

C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
POLICE COURT—continued.			
Pay of jurors:			
1892 .....	\$8,000.00		
1891 .....	518.00		
Total .....		\$8,518.00	
United States marshals' fees, 1892 (serving precepts) .....		1,400.00	
Repairs to police court building, 1892 .....		153.23	
Writs of lunacy, 1892 .....		1,792.43	
Aggregate for police court .....			\$36,487.61
PUBLIC SCHOOLS, SUPPORT.			
Pay of officers, teachers, and janitors, 1892 .....		639,881.48	
Rent of school buildings:			
1892 .....	7,404.00		
1891 .....	30.00		
Total .....		7,434.00	
Repairs to school buildings:			
1892 .....	23,900.41		
1891 .....	449.59		
Total .....		24,350.00	
Fuel:			
1892 .....	28,987.16		
1891 .....	11.14		
Total .....		28,998.30	
Furniture for new buildings:			
1892 .....	6,905.14		
1891 .....	9,903.58		
Total .....		16,808.72	
Industrial instruction:			
1892 .....	8,763.71		
1891 .....	65.50		
Total .....		8,829.21	
Contingent expenses:			
1892 .....	25,311.37		
1891 .....	343.98		
Total .....		25,655.35	
Contingent expenses of night schools, 1892 .....		316.07	
Text-books and school supplies for pupils of the first six grades, 1892 .....		24,768.77	
Aggregate for support of public schools .....			777,041.90
BUILDINGS AND GROUNDS, PUBLIC SCHOOLS.			
Purchase of site and erection of building in—			
Second division, 1892 .....		26,942.35	
Brookland, 1892 .....		11,980.70	
Eighth division, 1892 .....		34,971.54	
Third division, 1892 .....		26,329.60	
Sixth division, 1892 .....		25,514.99	
Erection of 8-room building in Anacostia, 1891 .....		112.50	
Purchase of sites and erection of buildings in first, third, seventh, and eighth divisions, 1891 .....		32,023.18	
Erection of colored high-school building, 1891 .....		29,587.03	
Erection of eastern high-school building, 1892 .....		61,695.16	
BUILDINGS AND GROUNDS, PUBLIC SCHOOLS.			
Purchase of ground in rear of Brightwood building, 1892 .....		602.25	
Aggregate for buildings and grounds, public schools .....			249,759.30
HEALTH DEPARTMENT.			
Pay of employes:			
1892 .....	25,546.91		
1891 .....	49.45		
Total .....		25,596.36	

## 56 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
HEALTH DEPARTMENT—continued.			
Rent:			
1892 .....	\$870.00	.	
1891 .....	280.00		
Total .....		\$1,150.00	
Prevent the spread of scarlet fever and diphtheria:			
1892 .....	3,164.98		
1891 .....	395.52		
Total .....		3,560.50	
Collection and removal of garbage, 1892 .....		37,329.67	
Aggregate for health department .....			\$67,636.53
MILITIA.			
Rent, fuel, light, and care of armories, 1892 .....	13,892.59		
Rent, fuel, light, and care of armories, 8 battalions, 1891 .....	2.40		
Total .....		13,894.99	
Printing and stationery, 1892 .....	259.65		
Printing blank forms, 1891 .....	28.00		
Total .....		287.65	
Lockers, gun-racks, and furniture, 1892 .....		1,297.99	
Cleaning and repairing uniforms, arms, and equipments, and contingent expenses, 1892 .....		144.40	
Custodian in charge of public property, 1892 .....		825.00	
Clearing grounds and completing rifle range, 1892 .....		190.88	
Expenses of drills and parades, 1892 .....		979.19	
Transportation and expenses of rifle range, 1892 .....		495.03	
Expenses of rifle practice and matches, 1892 .....		1,175.93	
Purchase of water barrels, 1892 .....		103.20	
Incidental expenses, 1892 .....		350.00	
Aggregate for militia .....			19,744.26
CHARITIES AND CORRECTIONS.			
Washington Asylum:			
Pay of employes, 1892 .....	13,805.87		
Inclosing reservation for burial ground, 1892 .....	549.52		
Furniture for hospital ward and dining-room, 1892 .....	688.68		
Completing dining-room for operating ward, 1892 .....	498.48		
Contingent expenses, 1892 .....	47,994.95		
Contingent expenses, 1891 .....	1,163.35		
Addition to female workhouse, 1892 .....	24,956.04		
Total for Washington Asylum .....		89,656.89	
Transportation of paupers and prisoners:			
1892 .....	3,214.55		
1891 .....	177.89		
Total .....		3,392.44	
Relief of the poor—			
Medicines and medical attendance:			
1892 .....	14,480.35		
1891 .....	811.80		
Temporary support of indigent persons:			
1892 .....	5,400.00		
1891 .....	250.00		
Total .....		20,942.15	
Hospital for the insane:			
Support of indigent insane persons—			
1892 .....	83,022.50		
1891 .....	7,291.66		
Total .....		90,314.16	
Reform school:			
Support of inmates—			
1892 .....	46,642.29		
1891 .....	454.26		
Total .....		47,096.55	



## C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
CHARITIES AND CORRECTIONS—continued.			
St. John's Church Orphanage Association:			
Appropriation for—			
1892 .....	\$2,000.00		
1891 .....	25.50		
Total .....		\$2,025.50	
Industrial Home school, 1892 .....		11,524.47	
Columbia Hospital for Women and Lying-in Asylum, 1892 .....		20,000.00	
Women's Christian Association, 1892 .....		4,000.00	
National Association for Colored Women and Children, 1892 .....		12,000.00	
Children's Hospital, 1892 .....		10,000.00	
St. Ann's Infant Asylum, 1892 .....		6,500.00	
St. Rose Industrial School, 1892 .....		2,500.00	
German Orphan Asylum, 1892 .....		6,000.00	
Washington Hospital for Foundlings, 1892 .....		6,000.00	
Association for Works of Mercy .....		3,000.00	
National Homeopathic Hospital Association, 1892 .....		9,000.00	
National Temperance Home, 1892 .....		2,149.69	
House of the Good Shepherd, 1892 .....		3,248.96	
Columbia Institute for Deaf and Dumb, 1892 .....		10,500.00	
Education of Feeble Minded Children, 1892 .....		1,479.44	
Building for Central Dispensary and Emergency Hospital, 1892 .....		26,338.00	
Support of convicts, 1892 .....		21,000.00	
Aggregate for charities and corrections .....			\$408,668.25
MISCELLANEOUS ITEMS.			
Washington Aqueduct, engineering, etc., 1892 .....		20,000.00	
Harbor and river front, improvement and protection, enforcement of laws, etc., 1892 .....	2,540.92		
Harbor and river front, improvement and protection, enforcement of laws, etc., 1891 .....	23.06		
Total .....		2,563.98	
Purchase and repairs of public pumps, 1892 .....	3,876.61		
Purchase and repairs of public pumps, 1891 .....	1,066.96		
Total .....		4,943.57	
Emergency fund, 1892 .....	3,101.43		
1891 .....	2,467.17		
Total .....		5,568.60	
Interest and sinking fund on the bonded indebtedness, 1892 .....		1,213,947.97	
Public scales, repairs and replacement of, 1892 .....		741.85	
Numbering houses in suburban villages and designating alleys, 1892 .....		598.25	
Plats of subdivisions outside of Washington and Georgetown, 1892 .....		2,000.00	
Expenses of assessing real property, 1892 .....		2,625.63	
National Zoological Park, 1892 .....		67,000.00	
Rock Creek Park, 1892 .....		150,000.00	
Interest on 3.65 bonds, issued to satisfy judgments of the Court of Claims against the District of Columbia, 1892 .....		17,259.27	
Board of engineers to consider the location of electric wires, 1891 .....		4,274.48	
Public bathing beach, 1891 .....		2,319.14	
Deficiency in the amount realized from sale of bonds retained from contractors, act April 4, 1890 .....		409.68	
Aggregate for miscellaneous items .....			1,494,252.42
WATER DEPARTMENT.			
Pay of employes—			
1892 .....	38,574.36		
1891 .....	6.00		
Total .....		38,580.36	
Pay of inspectors of cast iron pipe—			
1892 .....	1,203.20		
1891 .....	62.00		
Total .....		1,265.20	

## C.—Statement of expenditures on account of the government of the District of Columbia for the fiscal year ending June 30, 1892—Continued.

Title of appropriations.	Detail.	Total.	Aggregate.
WATER DEPARTMENT—continued.			
Contingent expenses—			
1892 .....	\$1,965.83		
1891 .....	289.64		
Total .....		\$2,255.47	
General expenses and pipe distribution—			
1892 .....	94,243.24		
1891 .....	22,058.80		
Total .....		116,302.04	
Interest and sinking fund on water stock bonds, 1892 .....	44,610.00		
Interest on account of increasing water supply, 1892 .....	30,499.43		
Sinking fund on account of increasing water supply, 1892 .....	53,507.77		
Total .....		128,617.20	
Making numerical book for water department, 1892 .....		175.00	
Services in making water-rent books, 1892 .....		588.00	
Refunding water rents and main tax erroneously paid .....		988.16	
Aggregate for water department .....			\$288,771.43
SPECIAL AND TRUST FUNDS.			
Guaranty fund, District of Columbia, act June 11, 1878 .....		40,836.69	
Refunding erroneously paid taxes .....		10,805.81	
Redemption of Washington special tax scrip .....		712.60	
Redemption of tax lien certificates .....		269.44	
Redemption of special assessment certificates .....		213.82	
Redemption of tax sale certificates .....		3,102.51	
Policemen's relief fund .....		15,642.02	
Firemen's relief fund .....		1,645.00	
Aggregate for special and trust funds .....		73,227.89	
Grand aggregate of expenditures on account of the District of Columbia to June 30, 1892 .....			6,234,938.78

The above expenditures may be classed as follows:

From United States appropriations .....	\$2,861,469.73
From revenues of the District of Columbia .....	3,022,275.54
From water fund of the District of Columbia .....	288,771.43
Special and trust funds .....	62,422.08
Aggregate .....	6,234,938.78

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 59

D.—Statement of deposits and disbursements by the Commissioners on account of general expenses of the District of Columbia for the fiscal year ended June 30, 1892.

On what account.	Detail.	Total.	Aggregate.
<b>DEPOSITS.</b>			
Balance to the credit of the Commissioners of the District of Columbia with the Treasurer of the United States, July 1, 1891.....		\$287, 763. 40	
Amount advanced by the Secretary of the Treasury upon requisition by the Commissioners of the District of Columbia and deposited with the Treasurer of the United States on account of—			
General fund of the District of Columbia.....	\$4, 449, 481. 41		
Refunding erroneously paid taxes.....	14, 000. 00		
Water fund.....	174, 289. 82		
Contractors' guaranty fund.....	47, 488. 11		
Washington special tax fund.....	1, 316. 00		
Washington redemption fund.....	2, 960. 03		
Redemption of tax lien certificates.....	212. 00		
Redemption of assessment certificates.....	213. 82		
Policemen's relief fund.....	15, 635. 35		
Firemen's relief fund.....	1, 645. 00		
		4, 707, 241. 54	\$4, 995, 004. 94
<b>DISBURSEMENTS.</b>			
Amount of checks drawn by the Commissioners of the District of Columbia on the Treasurer of the United States, on account of—			
General fund of the District of Columbia.....	4, 224, 004. 21		
Refunding erroneously paid taxes.....	10, 805. 81		
Water fund.....	160, 154. 23		
Contractors' guaranty fund.....	40, 836. 69		
Washington special tax fund.....	712. 60		
Washington redemption fund.....	3, 102. 51		
Redemption of tax lien certificates.....	269. 44		
Redemption of assessment certificates.....	213. 82		
Policemen's relief fund.....	15, 642. 02		
Firemen's relief fund.....	1, 645. 00		
		4, 457, 386. 33	
Amount of unexpended balances of requisitions repaid to appropriations to close accounts of Commissioners Douglass, Ross, and Robert on account of—			
General expenses of the District of Columbia.....	401, 911. 62		
Refunding erroneously paid taxes.....	1, 762. 02		
Water fund.....	15, 131. 95		
Contractors' guaranty fund.....	4, 632. 63		
Washington special tax fund.....	408. 43		
Washington redemption fund.....	171. 55		
Redemption of tax lien certificates.....	112. 66		
Redemption of assessment certificates.....	800. 00		
Policemen's relief fund.....	85. 00		
		425, 015. 86	4, 882, 402. 19
Balance to the credit of the Commissioners of the District of Columbia with the Treasurer of the United States June 30, 1892, subject to check, the same being unexpended balances of requisitions.....			112, 602. 75



60 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

E.—Statement of water-fund revenues and appropriations for the fiscal year ended June 30, 1892.

On what account.	Detail.	Total.	Aggregate.
REVENUE.			
Receipts:			
Balance to the credit of water fund in the United States Treasury July 1, 1891, available for appropriation		\$67,767.31	
Collections	\$301,762.09		
Less amount refunded erroneously paid water rents	888.61	300,873.48	
			\$368,640.79
Appropriation:			
Appropriation by the United States (act March 3, 1891)			286,808.14
Balance to the credit of water fund in the United States Treasury June 30, 1892, available for appropriation			81,832.65
APPROPRIATIONS AND REQUISITIONS.			
Appropriations:			
Balance to the credit of water department in the United States Treasury July 1, 1891, subject to requisition, on account of appropriations for the year 1891 and prior years		88,880.65	
Appropriations by the United States (act March 3, 1891)		286,808.14	
Repayments to appropriations for the year:			
1892			
1891-'92	\$14,650.83		
1891	349.00		
1890	454.56		
1889	57.38		
1887	31.28		
	26.60		
		15,569.65	
			391,264.44
Requisitions—			
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury on account of appropriations for the year—			
1892			
1891-'92	155,000.00		
1891	500.00		
	17,789.82		
		173,289.82	
Payments by the Treasurer of the United States—			
Interest and sinking fund on water stock bonds	44,610.00		
Interest on account of increasing water supply (act July 15, 1882)	69,991.13		
		114,601.13	
			287,800.95
Balance to the credit of water department in the United States Treasury June 30, 1892, subject to requisition, on account of appropriations for the year 1892 and prior years			103,373.49

F.—Statement of receipts and requisitions on account of trust funds for the fiscal year ended June 30, 1892.

Contractor's guaranty fund:	
Receipts—	
Proceeds of sales of bonds deposited in the United States Treasury	\$42,855.48
Repayment deposited in the United States Treasury	4,632.63
	\$47,488.11
Requisitions—	
Requisitions by the Commissioners of the District of Columbia on the United States Treasury	47,488.11
Washington special-tax fund:	
Receipts—	
Balance in the United States Treasury July 1, 1891	9,714.96
Collections deposited in the United States Treasury	153.86
Repayment deposited in the United States Treasury	408.43
	10,277.25
Requisitions—	
Requisitions by the Commissioners of the District of Columbia on the United States Treasury	1,316.00
Balance in the United States Treasury June 30, 1892	8,961.25

F.—Statement of receipts and requisitions on account of trust funds for the fiscal year ended June 30, 1892—Continued.

Washington redemption fund:

Receipts—	
Balance in the United States Treasury, July 1, 1891.....	\$159.80
Collections deposited in the United States Treasury.....	3,139.55
Repayment deposited in the United States Treasury.....	171.55
	<u>\$3,470.90</u>
Requisitions—	
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury.....	2,960.03
	<u>510.87</u>

Balance in the United States Treasury, June 30, 1892.....

Redemption of tax-lien certificates:

Receipts—	
Balance in the United States Treasury July 1, 1891.....	2,869.17
Collections deposited in the United States Treasury.....	278.24
Repayment deposited in the United States Treasury.....	112.66
	<u>3,260.07</u>
Requisitions—	
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury.....	212.00
	<u>3,048.07</u>
Balance in the United States Treasury, June 30, 1892.....	

Redemption of assessment certificates:

Receipts—	
Balance in the United States Treasury, July 1, 1891.....	34.44
Repayment deposited in the United States Treasury.....	800.00
	<u>834.44</u>
Requisitions—	
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury.....	213.82
	<u>620.62</u>
Balance in the United States Treasury, June 30, 1892.....	

Policemen's relief fund:

Receipts deposited with the Treasurer of the United States—	
Balance July 1, 1891.....	705.20
Interest on bonds collected.....	932.75
Proceeds of sales of bonds.....	8,145.75
Fines collected.....	1,778.75
Repayment.....	85.00
Amount retained from pay of policemen.....	4,971.54
	<u>16,618.99</u>
Requisitions—	
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury.....	15,635.35
	<u>983.64</u>
Balance with the Treasurer of the United States, June 30, 1892.....	

Firemen's relief fund:

Receipts deposited with the Treasurer of the United States:	
Balance July 1, 1891.....	172.92
Interest on bonds collected.....	92.50
Fines collected.....	105.00
Donations.....	75.00
Repayments.....	76.45
Amount retained from pay of firemen.....	1,534.78
	<u>2,056.65</u>
Requisitions:	
Requisitions by the Commissioners of the District of Columbia upon the United States Treasury.....	1,645.00
	<u>411.65</u>
Balance with the Treasurer of the United States June 30, 1892.....	

## E.

### REPORT OF THE ATTORNEY.

OFFICE OF THE ATTORNEY,  
DISTRICT OF COLUMBIA,  
*Washington, November 30, 1892.*

**GENTLEMEN:** The cases now pending in the courts of this District, in which the District of Columbia is a party, and under the charge of the office of the attorney for the District of Columbia, and which have been entered upon the dockets of the courts during the fiscal year ending June 30, 1892, are as follows:

Equity causes, 5.

Causes at law 143 (including certiorari, of which there were 96 cases disposed of).

Number of cases in equity that have been disposed of during the said fiscal year by this office, 4.

Number of cases at law that have been disposed of in the same time, 11.

But these do not include special condemnation proceedings which have been conducted by this office, and terminated during that time, involving much labor and care.

The only case disposed of in the Supreme Court of the United States during the year, in which the District was interested, was that of *Hutton* against the District, which involved the authority of the Commissioners over the appointment of persons as policemen in the District, as affected by the second limitation contained in section 354, of the Revised Statutes of the District. The decision in this case sustained the position assumed by this office in its opinion on the subject, rendered to the honorable Commissioners, as against that taken by the First Comptroller of the Treasury.

The case of the District of Columbia against the Washington Gaslight Company, decided by the supreme court of the District in general term, in favor of the District, is pending in the Supreme Court of the United States on appeal. That was an action to recover over against the Gaslight Company, the amount of a verdict the District had been compelled to pay for damages resulting from a projecting gas box in a sidewalk, and established the important doctrine that it is the duty of the gas company to keep its works in order and not the District, as maintained by the company.

The thirty-one so-called sewer cases included in the foregoing classification of causes at law pending, and which claim in the aggregate the sum of \$300,000, as damages against the District, for alleged injuries to personal and real property, on account of the same being overflowed by water backing up through certain sewers, at the time of extraordinary rainfalls, combined with high tides, have been instituted, on account of the result of the trial of the case of *Gray vs. The District*, which took place in May last, will depend for success upon the final de-



termination of that case, in general term, on appeal, where it is soon to be argued and in the Supreme Court of the United States, where it is likely to go for final adjudication.

Under the head of advisory work this office has rendered during the fiscal year 350 opinions, and has also, at the request of the honorable Commissioners, framed many bills for the consideration of Congress, which have since become laws, to the great advantage of the people of the District.

The office during the year prepared all the tax deeds which were issued upon tax sales, and conducted all the cases in lunacy proceedings, involving an amount of work which can not be well estimated by numbers.

In the police court the number of cases tried and disposed of on the District side were 13,656, and the total collections from fines and penalties during the year were \$48,730.31, as reported to this office by the special assistant of that court.

The supreme court of the District, in general term, in May last, rendered their decision in the case of the District of Columbia *vs.* Ignatius Nau. This case involved the construction of the act of the legislative assembly of the District, imposing a license on trades, business, and professions, practiced and carried on in the District of Columbia, approved August 23, 1871, and the amendment thereto approved June 20, 1872. This act contained the law of the District of Columbia relating to the sale of intoxicating liquors, and the decision is only important, as it relates to those sections of the law embracing this subject of legislation. The court, in construing the act, placed all the subjects of taxation therein contained under the same legislative power, and characterized the act in all its provisions as a revenue act, having for its object only the collection of revenues, no part thereof falling within the police power of the legislature. The court, in their opinion, define the object of this act in the following language:

It is evident that the object in enacting this statute by the legislative assembly was to collect the revenue and not to enact a penal statute for selling intoxicating liquor; nor is it especially directed toward persons who engage in the traffic in intoxicating liquors; it relates to the issuing of a license to parties in the District who may be engaged in the various trades, occupations, and professions, and is in no sense a penal act. If a party fails to pay his license tax when due or engages in business without paying it, he may be compelled to pay not only the tax but a penalty.

And the court further say:

That it is the failure to pay the tax that is made the subject of prosecution by this act.

It will be seen, therefore, that this decision takes away the discretionary power of the Commissioners to regulate the sale of intoxicating liquors in the District of Columbia, by a license, a power theretofore existing and maintained by the court in the case of *Manion vs. The District* (6 Mackey, p. 409); and of *Roop & Nopper vs. The District*, (19 D. C., (Mackey) p. 99), and apparently leaves the vendors of intoxicating liquors in the District of Columbia masters of the field. He has, under the law, thirty days to pay the license tax after it becomes due, and payable before the right of prosecution for nonpayment can commence, and is apparently protected in the sale thereof, upon a tender of the tax, whether it is received or rejected by the Commissioners. As the law now stands Congress alone can supply the necessary power for the control and regulation of the sale of intoxicating liquor in the District of Columbia. The necessity for such legislation was suggested to Congress soon after the Nau decision was made by the Commis-

sioners, and Senate bill No. 3416, Fifty-second Congress, prepared by this office to meet the necessities of the case, passed the Senate and is still pending before the Committee of the District of Columbia in the House of Representatives.

It is to be hoped that this bill may become a law early in the coming session of Congress. Since the adjournment of Congress this office, with the earnest coöperation of the honorable Commissioners of the District of Columbia, has sought in vain to find a basis in existing law upon which to found authority in the Commissioners to still exercise their former discretion over the liquor traffic in the District, so vital to the welfare of the community—all seeming authority in the ordinances and laws of the levy court and of the municipality and in the Congressional resolution of February 26, 1892, have been carefully and faithfully invoked by this office, and declared by the courts of the District to have been repealed, or to be inadequate for the purpose. We must, therefore, appeal again to Congress, through the honorable Commissioners of the District, to enact such legislation as will meet the necessities of the case. The Senate bill above referred to is probably the most available for that purpose.

Before closing this, my report, I desire to acknowledge my obligations to my corps of assistants for the very efficient aid rendered by them in conducting the business affairs of the office during the fiscal year.

All of which is respectfully submitted.

GEO. C. HAZELTON,  
*Attorney for the District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

F.

# REPORT OF THE MAJOR AND SUPERINTENDENT OF THE METROPOLITAN POLICE.

HEADQUARTERS OF THE METROPOLITAN POLICE,  
DISTRICT OF COLUMBIA,  
Washington, July 1, 1892.

To the honorable the Commissioners of the District of Columbia:

GENTLEMEN: In submitting this report of the operations of this department during the past fiscal year, I have the honor to ask your favorable consideration of the following estimate of the appropriations necessary for its support during the fiscal year ending June 30, 1894:

1 major and superintendent .....	\$3,300
1 captain .....	1,800
2 lieutenants, inspectors, at \$1,500 each .....	3,000
1 chief clerk, who shall also be property clerk.....	1,800
1 clerk.....	1,500
2 clerks, at \$900 each .....	1,800
4 surgeons for the police and fire departments, at \$540 each .....	2,160
Additional compensation for 12 privates detailed for special service in the detection and prevention of crime .....	2,880
9 lieutenants, at \$1,320 each .....	11,880
31 sergeants, at \$1,140 each .....	35,340
233 privates, class one, at \$900 each .....	209,700
183 privates, class two, at \$1,080 each .....	197,640
20 station-keepers, at \$720 each .....	14,400
9 laborers, at \$480 each.....	4,320
1 laborer, in charge of morgue.....	680
1 messenger .....	700
1 messenger.....	500
1 major and superintendent, mounted.....	240
1 captain, mounted.....	240
45 lieutenants, sergeants, and privates, mounted, at \$240 each.....	10,800
1 van driver .....	360
1 ambulance driver.....	480
2 assistant ambulance drivers, at \$300 each .....	600
16 drivers of patrol wagons, at \$360 each .....	5,760
3 police matrons, at \$600 each .....	1,800
For rent of police headquarters and station at Anacostia.....	1,200
For fuel .....	2,500
For repairs to stations .....	3,000
For miscellaneous and contingent expenses, including stationery, books, telegraphing, photographs, printing, binding, gas, ice, washing, meals for prisoners, furniture and repairs thereto, beds and bed clothing, insignia of office, purchase and care of horses, police equipments and repairs to same, harness, forage, repairs to vehicles, van, ambulances, and patrol wagons, and expenses incurred in prevention and detection of crime, and other necessary items .....	19,640
Covers for 6 patrol wagons, at \$85 each .....	510
3 light wagons, harness, and horses .....	1,100
Police signal and telephone system outside of the cities of Washington and Georgetown .....	8,500
For additional story to eighth precinct station-house .....	5,600

Total ..... 555,730



66 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

This estimate exceeds by \$45,120 the appropriations for the current year, and the items which cause this increase are as follows:

1 clerk, at .....	\$900
1 sergeant, at .....	1,140
13 privates, class 1, at \$900 each .....	11,700
13 privates, class 2, at \$1,080 each .....	14,040
1 laborer, at .....	480
1 sergeant and 6 privates, mounted, at \$240 each .....	1,680
3 drivers of patrol wagons, at \$360 each .....	1,080
Fuel .....	500
Repairs to stations .....	1,000
Miscellaneous and contingent expenses .....	2,890
Covers for six patrol wagons, at \$85 each .....	510
Three light wagons, harness, and horses .....	1,100
Police signal and telephone system .....	8,500
Additional story to eighth precinct station .....	5,600
Deduct current appropriation for ambulance stables .....	51,120
Total .....	6,000
	45,120

CLERICAL ASSISTANCE.

Only 3 clerks are borne upon the rolls of this department. The chief clerk is burdened not only with the duties of that position, but also holds the responsible office of property clerk. The time of the \$1,500 clerk (who is a stenographer) is almost entirely occupied in reporting the proceedings of the trial committee, while the \$900 clerk has for years been detailed for service with the assessor of the District of Columbia. A prompt and proper transaction of business has for some time necessitated the employment at desk work in this office of 4 policemen, for, while within the past six years the force has been increased 56 per cent and the work about 33 per cent, no allowance has been made for proportional assistance. Application is therefore made for another clerk, at a yearly salary of \$900.

INCREASE OF THE POLICE FORCE.

The estimates for the current year called for an addition to the force of 2 sergeants (1 to be mounted) and 40 privates; only 15 privates, however, were allowed. It is urgent that this deficit of 27 men should now be provided for, and that an appropriation should also be made to add to the mounted service 1 sergeant and 6 privates. It may be explained that the eighth precinct, embracing within its limits an extensive suburban area, lying between Rock Creek and the Eastern Branch and north of the city to the Maryland boundary line, is patrolled by 19 men, 13 of whom are mounted. They are divided into three reliefs of 6 men each, under the supervision of a single sergeant, each relief being required to do eight hours' duty.

There being no direct route from the station to the extreme eastern portion of this territory, it has become necessary to direct that all calls for a patrol wagon from that section shall be answered by the ninth precinct. It is therefore proposed, should this increase of mounted men be authorized, to detach from the eighth, and to add to the ninth precinct all that portion of the county which lies between the Brentwood road and the Eastern Branch, and to detail them for duty therein. The residents in this outlying district would then be afforded better police protection, the want of which is the cause of many earnest and well-founded complaints.

## LABORER FOR HEADQUARTERS.

Another laborer, at \$480, is estimated for, as he is needed for service in this office, which is located in an old building not at all suitable for the purpose. It has not even the advantage of a furnace, but in cold weather reliance for comfort is upon stoves and latrobes. It is impossible to supply these with fuel with two messengers, whosetime is well occupied with ordinary office duties. At present there is a laborer at each station-house, and in the absence of any one of them, on account of sickness or any other cause, he is required to provide a substitute, at his own expense, his duties being such as not even to permit him the usual leave granted employés of this class in the public service. This could, to some extent at least, be remedied by the addition herein recommended.

## ALL-NIGHT PATROL WAGONS.

In five of the nine precincts, for want of more drivers, the patrol wagons are not available after 8 o'clock p. m. As a consequence the officers of those precincts who make arrests during the succeeding hours of the night are compelled to leave their beats unguarded while they take their prisoners to the stations. The greatest number of arrests are made after nightfall, and it is essential for police efficiency that the employment of three more drivers should be authorized.

## FUEL.

An increase of \$500 is asked for fuel, in view of the completion and occupation of the seventh precinct station-house, which is the largest yet erected in the District of Columbia for police purposes, and the proposed addition of a story to the eighth precinct building.

## REPAIRS TO STATIONS.

The amount required for this purpose is based upon the estimate of the building inspector. It is \$1,000 in excess of the sum appropriated for the present year, and is necessary to maintain in good condition the stations and stables, always in constant use.

## CONTINGENT FUND.

The increase of \$2,890 for miscellaneous and contingent expenses is urged upon careful consideration. Should 27 men be added to the force, as recommended, an average of \$30 per man would be required to equip and accommodate them. The expenditure for laundrying, ice, and supplies would be proportionately enlarged; the ambulance stable and another story to the eighth precinct station must cause a greater consumption of gas; repairs to harness and to wagons (some of the vehicles being old); forage for, shoeing, and medical treatment of a larger number of horses; meals for prisoners, the number of arrests having been startlingly increased; horses, to supply those worn out in the service; furniture for the additional story to the eighth precinct station, and other items amply justify the amount named for contingent purposes.



## WAGON COVERS AND LIGHT WAGONS.

These are to be applied to but six wagons, at a cost of \$510, three of the old-style wagons not being adapted to the change. Those upon which it is proposed to place covers are employed in the most populous sections, and are often used to transport persons who have been injured or taken ill on the streets. Now and then they have also to carry dead bodies, which are plainly visible as the wagons pass along the public thoroughfares, presenting a very objectionable spectacle. Covers are desirable not only to avoid shock to the sensitive in cases of dead persons, but to afford protection to the sick and injured as well as to prisoners, and their adoption would be in accordance with public sentiment, always in line with humanity and decency.

Light wagons would be of great use in the outlying districts. The patrol wagons average a weight of nearly 1,400 pounds, and are drawn by a single horse (the appropriations not allowing any more), although in cases of emergency they may have to carry 10 men. They are over-heavy for country roads, and it would therefore be economical to have three light wagons for rural service, at an original expense, including horses and harness, of \$1,100. They could take the place of regular patrol wagons undergoing repairs, and be useful on great public occasions, when it has now and then been found necessary to employ private vehicles for police purposes.

## POLICE SIGNAL SERVICE.

Attention is invited to the following estimate, carefully prepared by the superintendent of the telegraph and telephone service:

In compliance with your request I have made a careful estimate of the cost of extending the patrol system of telegraph and telephone service of the fifth and seventh police precincts into the county of Washington, so as to enable the officers patrolling those precincts outside the cities of Washington and Georgetown to report promptly and frequently while on duty.

In company with Lieut. Swindells, of the seventh precinct, I made a tour of nearly all the county roads patrolled by the officers of that precinct, and we came to the joint conclusion that ten boxes (reporting stations) ought to be established in that part of the county within the limits of that precinct; one each at the following places:

Intersection of Tennallytown road and Woodley lane. Intersection of Connecticut avenue extension and Woodley lane (near the Zoo). Intersection of Pierce's mill and Broad Branch roads. Intersection of Military and Milkhouse Ford roads (Swartz place). Intersection of Connecticut avenue extension and Brookville roads (Electric Railroad). Intersection of Tennallytown, Brookville, and River roads (Tennallytown). Intersection of Loughboro and Ridge roads (Wesley Heights). Intersection of Conduit and New Cut roads (distributing reservoir). At or near east end of Chain Bridge. Near the receiving reservoir (near the Reform School for Girls).

These are all very important points, and conveniently located in the way of affording the greatest protection to both citizens and the traveling public. The wiring of the necessary circuits for this extension will make it an easy and comparatively inexpensive matter to protect the new Rock Creek Park when improved, as the wire from the Swartz place to Pierce's mill would run along the highway bordering that park on the west, so that additional boxes could be added with trifling cost.

One of the proposed boxes is near enough to the Zoölogical Park to be of great service in maintaining order in that inclosure. The reform school for girls (soon to be erected) will be greatly benefited by the reporting station located near the upper reservoir.

Fortunately nearly two-thirds of the necessary poles for support of the wires in the seventh precinct are already in position, only about 200 new ones being required, greatly reducing the cost of construction. About 22 miles of wire would be necessary; 10 call boxes and a two circuit register for the station house. The cost of the entire plant for this precinct I estimate at \$5,500.

The necessities for extension in the fifth, while as urgent as in the seventh, do not require so large a plant. Four reporting stations, one each at the following places: Benning, Twining City, Good Hope, and Hillsdale.



For this precinct about 10 miles of wire, 120 poles, 4 call boxes, and a single pen register will be necessary. The cost I estimate at \$3,000.

*Recapitulation.*—The seventh precinct, with 10 boxes, a 2-pen register, and 22 miles of wire, with 200 new poles, etc., will cost \$5,500. The fifth precinct, with 4 boxes, a 1-pen register, and 10 miles of wire, 120 new poles, etc., will cost \$3,000. Total cost of extension in both precincts, \$8,500.

Very respectfully,

HENRY R. MILES,

*Superintendent of Telegraph and Telephone Service, District of Columbia.*

In those portions of the fifth and seventh precincts, which are beyond the city limits, there are now only three means of direct communication by wire with the stations, while the eighth precinct is already well supplied with such facilities. The growth of population and improvements in the two first-named requires a more extended patrol service, one which will secure prompt responses to urgent demands for police aid. In the seventh are the Rock Creek Park, the Zoölogical Garden, the National Observatory, the large reservoirs which supply the people of the District with water, and several lines of electric railroads, while in contemplation is the erection of the projected Wesleyan University and the Reform School for Girls. In the fifth are the Government Hospital for the Insane and numerous villages, two of which contain a population each of over 2,000 souls. With additional boxes and the light wagons herein recommended these rural districts could be far more efficiently patrolled than now, as an officer would not be compelled to ride several miles to deliver a prisoner to the station, and residents, supplied with keys, could themselves call for aid in emergent cases when a policeman was not within easy reach.

#### ANOTHER STORY.

The eighth precinct station has but a single dormitory, so limited in dimensions that 19 of the men on duty north of Florida avenue are precluded from sleeping within the building. To relieve this condition of affairs, detrimental to both health and discipline, it is essential that another story should be added, the cost of which, as estimated by the building inspector, will be \$5,600.

#### INEBRIATE ASYLUM.

It is yet my belief that in a community of 258,000 people there should be an institution for the treatment of inebriates. It must be remembered that here drunkenness is not an offense against the law, and that persons whose insanity is the result of inebriety are not admitted to the Government Hospital for the Insane, neither can the victims of drink, unless disorderly, be confined against their will in any local institution. They can therefore roam the streets, pitiable objects, now and then disappearing for a brief period from public view when committed to the workhouse as habitual drunkards.

#### DISCIPLINE.

Notwithstanding the fact that the police force received an addition of ten members at the beginning of the fiscal year 1892, at its close there had been before the trial committee twelve less cases of violations of the rules and regulations than during the preceding year. This decrease may be ascribed to several reasons, the principal of which was the good results which followed the declaration of the department to rid itself of inefficient members. Another potent factor was the abo-

lition of the Army and Navy clause in the law governing appointments on the force, which was taken advantage of under an initial appointment February 8, 1892. That policemen should err is to be expected. Every large body of men contains some who are weaker than others, and while it is the determination and policy of the department to dispense with the services of those of its members who transgress the rules, there are many difficulties encountered in determining such cases, which too often arise through the prevalent opinion, in many sections, that a policeman should be downed if in the execution of the law he disconcerts somebody's feelings. The law requires that an officer shall do his duty at all hazards, politely, if possible, by all means firmly, and the wanton and uncalled for use of the baton and revolver is deprecated and condemned.

#### THE POLICEMEN'S FUND.

The policemen's fund, as originally created by the statute, embraced all fines imposed upon members of the police force, by way of discipline; all rewards, fees, proceeds of gifts and emoluments that might have been given for services, and all monies arising from the sale of unclaimed goods. It could be utilized by the board of police, which was the trustee under the law, for the necessary expenses of a member of the force during actual disability incurred in the discharge of duty, but such allowance might be discontinued by the board for any satisfactory reason. Twenty years after its creation this fund became inadequate to meet the demands made upon it by reason of the rapidly increasing number of members who became charges against it through the breaking down of the older officers from long service and exposure. As a consequence, Congress passed the act approved February 25, 1885, which required the Commissioners to deduct \$1 per month from the pay of each policeman, the sum so derived to be added to and form a part of the fund existing under the former law. The fund was at the same time taken from the custody of the Commissioners and placed in the hands of the Treasurer of the United States, to be invested in United States or District bonds, and held by him, subject to the drafts of the Commissioners, for the following specific purposes:

For the relief of any policeman who, by injury received or disease contracted in the line of duty, or having served not less than fifteen years, shall become so permanently disabled as to be discharged from service therefor, and in case of his death from such injury or disease, leaving a widow or children under 16 years, for their relief: *Provided further*, That such relief shall not exceed for any policeman or his family the sum of \$50 per month; and a sum not exceeding \$75 dollars may be allowed from said fund to defray funeral expenses of any policeman dying in the service of the District.

July 1, 1886, about the time the new law was put into operation, the fund aggregated \$27,486.98, and 8 pensioners had been placed upon the roll under its provisions at a monthly expense of \$360. A year later the number of pensioners had increased to 10 and the fund to \$28,818.34. July 1, 1888, the roll contained the names of 12 pensioners, and the resources reached \$30,068.01, at a monthly cost of \$430. In 1889 the available means had, on the 1st day of July, grown to \$31,706.45, with 20 pensioners at an expense of \$575 per month. July 1, 1890, when the roll embraced 30 names, the fund began to diminish. In other words, the interest on the money invested and other sources of supply were not equal to the demands, and in this connection the fact should be stated that the decrease would have started two years prior had not annual steamboat excursions and a ball been given by members of the department in order to prevent a draft upon the principal. At the close of the fiscal year 1891 the work of depletion had fairly begun,



when the aggregate dropped to \$27,701.57, with an annual roll amounting to \$13,680, not including allowances for funeral expenses of \$75 in each case of death of a member of the force. At the present date, July 1, 1892, the fund has been reduced to \$20,983.64.

The department has now among its old and valued members those who have gone through twenty years of duty, some of whom are fast approaching the time when they must surrender the baton and badge for the rest they so justly deserve. It would be inhuman and cruel to set these faithful servants aside without the provisions which have been made for others, or to see their widows and little ones thrown upon the world to look for the necessities of life, while a law stands upon the statute books providing a method for their relief, without furnishing the means to carry it into effect. It is my aim to impress thus early upon the Commissioners the doleful situation which stares in the face those entitled to relief, that ample time may be had to formulate and put into operation such law as will avert disaster to them. It is therefore recommended that an annual estimate be made for an appropriation for the support of the pensioned class, and that the law be so amended as to limit a widow's allowance to the term of her widowhood.

*Statement of policemen's relief fund for the fiscal year ended June 30, 1892.*

Receipts:

Balance on hand July 1, 1891 .....	\$705. 20
Interest on bonds .....	932. 75
Proceeds of sale of bonds .....	8, 145. 75
Fines collected .....	1, 778. 75
Amount retained from pay of policemen .....	4, 971. 54
Amount of repayment .....	85. 00
	<hr/>
	16, 618. 99

Disbursements:

Amount paid pensioners .....	15, 635. 35
	<hr/>
Balance on hand June 30, 1892 .....	983. 64
Bonds on hand, District of Columbia 3.65 bonds .....	20, 000. 00
	<hr/>
Total .....	20, 983. 64

*Collections from fines, rewards, and lost time.*

June 30, 1891, balance uncollected .....	\$156. 00
June 30, 1892:	
To time lost .....	77. 68
To rewards received .....	210. 00
To fines imposed .....	1, 831. 00
To property sale .....	114. 05
	<hr/>
	2, 388. 73
To cash fines collected .....	\$1, 532. 00
To cash time collected .....	77. 68
To cash rewards collected .....	85. 00
To cash property sale collected .....	114. 05
	<hr/>
	1, 808. 73
	<hr/>
	580. 00
By cash fines remitted .....	310. 00
By cash rewards to officers .....	125. 00
	<hr/>
	435. 00
	<hr/>
Balance due .....	145. 00
Included in above collection is \$30, afterwards refunded Privates Gee, McGrath, and Stearns, by order of the Commissioners of the District of Columbia .....	30. 00
	<hr/>
Total balance due June 30, 1892 .....	175. 00



# 72 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

The total amount collected was \$1,808.73, which was sent to and deposited to the credit of the policemen's fund, as follows:

1891.		1892.	
Aug. 11	\$151.00	Apr. 8	\$170.00
Sept. 8	135.00	May 9	130.00
Oct. 17	185.00	June 10	80.00
Nov. 12	224.01	July 15	70.00
Dec. 12	205.00	Jan. 6, property sale	114.05
1892.			
Jan. 8	110.00	Oct. 25, to correct error R. L. Dean	1,803.73
Feb. 11	119.67		5.00
Mar. 11	110.00	Total	1,808.73

## Roll of pensioners.

Per month.		Per month.	
Gorman, Wm. A	\$10	Cunningham, Wm	\$50
Gorman, John J	10	Ferguson, Annie H	20
Gorman, Elizabeth	10	Ferguson, Mark E	10
Milstead, R. A	30	Collins, S. H	50
Kearney, S. L	40	Nokes, Mary J	20
Powell, Wm	30	Nokes, R. A	10
Harper, J. G	30	Nokes, Ethel A	10
Atchison, H. L	25	Constantine, Eliza R	20
Shelton, Joseph	50	Constantine, J. H	10
Coomes, Sarah A	30	Constantine, Mary L	10
Jones, Sophia	20	Clawson, J. M	50
Greer, Lucinda H	25	Arnold, J. E	50
Redway, Loretta	25	Slack, Mary E	20
Andley, John T	50	Slack, Mary E	10
Barkley, G. W	50	Slack, J. H	10
Skidmore, Mary A	20	Slack, E. H	10
Harper, Elizabeth A	20	Chamberlain, Laura E	20
Warwick, Clara V	20	Chamberlain, C. C	10
Warwick, L. K	10	Sebastian, Ann E	20
Kearney, Kate	20	Ohlsen, Nora	20
Kearney, Harry	10	Ohlsen, Hattie	10
Crippen, Florence	20	Ohlsen, Peter	10
Reilly, Margaret	20	Bast, Mary	20
Reilly, Margaret	10	Bast, Irene H	10
Greene, Marion V	20	McNeal, Joshua	50
Greene, John S	10	McHenry, Margaret	20
Greene, Minnie B	10	Guy, Mary L	25
Bail, J. McL	50	Guy, Mary N	10
Harbin, Sarah	20	Guy, John M	10
Kenner, Margaret	20	Bast, C. L	10
Filing, Andrew	25		
Larrabee, E. H	50		
Fitzgerald, T. D	50		
		Total	1,445

## COÖPERATIVE RELIEF.

There is conducted independently of the police department a coöperative relief association, which is contributed to by most of those who are or have been active members of the department. There are two classes of insured in this organization—those who pay \$2, as well as those who pay \$1, to the beneficiary in case of death of the insured, and those who contribute \$1, who, on the other hand, are insured for the number of dollars the full membership would contribute as \$1 each.

In one case the widow or heirs receive about \$614, and in the other about \$531. The total insurance varies in every instance, owing to increase or decrease in membership.

For years the chief clerk has conducted, without compensation, the

official business pertaining to this charitable arrangement, and is entitled to the gratitude of those interested for the excellent system of credit and disbursements he has arranged. The records of this association are open to the inspection of members at all times. During the past year the benefits paid were as follows:

1891.		
Aug. 17, heirs of George W. Nokes.....		\$520
Nov. 7, heirs of A. C. Constantine.....		532
Dec. 22, heirs of A. H. Chamberlain.....		531
Dec. 22, heirs of F. M. Janifer.....		531
1892.		
Jan. 29, heirs of Adolph Miller.....		625
Jan. 29, heirs of J. B. Slack.....		625
Mar. 2, heirs of Hans Ohlsen.....		528
Mar. 21, heirs of C. L. Bast.....		614
Mar. 23, heirs of Caleb Sebastian.....		626
Mar. 24, heirs of C. W. Mahon.....		605
Mar. 24, heirs of Edward McHenry.....		608
June 14, heirs of Cornelius Noonan.....		620
Total.....		6,965

#### DISTRIBUTION OF THE FORCE.

The entire police force of the District of Columbia on the 30th day of June, 1892, consisted of 418 men, namely: 1 major and superintendent, 1 captain, 2 inspectors, 9 lieutenants, 30 sergeants, and 375 privates.

Of the 405 sergeants and privates there were upon that date—

Sick or disabled.....	13
On leave.....	13
On post or special duty.....	72
Suspended.....	1
Leaving for patrol duty.....	306

During the same twenty-four hours the greatest number of these performing a tour of duty was 146.

#### DETAILED.

The following shows the location of the men engaged in performing post or special duty:

Bathing beach.....	2	Humane Society.....	1
Baltimore and Ohio depot.....	2	Hack inspector.....	1
Baltimore and Potomac depot.....	2	Ninth and F streets NW.....	2
District building.....	6	Patrol system.....	9
Detective office.....	11	Patrol steamer.....	3
Detective office night clerk.....	1	Precinct detective.....	1
Executive Mansion.....	7	Police court.....	4
Free bridge.....	1	Post-office.....	1
Fifteenth street and New York avenue NW.....	1	Seventh street and Pennsylvania avenue NW.....	2
Fifteenth and I streets NW.....	1	Wharves.....	1
Headquarters, in charge at night.....	1	Workhouse.....	5
Headquarters, clerk's office.....	5		
Headquarters, sanitary office.....	1	Total.....	72
Health department.....	1		

#### CRIME.

During the year which closed June 30, 1892, the police records contained a larger number of cases of arrest than during any previous period of the department's organization. There were 26,666 cases en-

tered upon the register, 12,415 being violations on the part of the white and 14,251 by the colored people of the District out of a total population of 258,431. For the year the increase over the previous twelve months was 1,500 cases. There was no perceptible change in the proportion of white to colored. Of the 26,666 cases, 22,473 were charged against males and 4,193 against females; 20,587 could read and write; 9,432 were married and 17,234 enjoyed single blessedness; 7,052 were under 21 years of age. It is not strange that, with an enlarged population and police force, additional patrol service, and an improved respect on the part of the members of this department for the rules governing them, greater vigilance, labor, and results should follow. To this end, it will be observed, upon examination of the statistics in detail, that there were more arrests for crimes of all kinds, while for misdemeanors there was equally as remarkable an expansion. It should be borne in mind at the same time that the swelled figures do not necessarily prove an increase of crime, but rather that those who committed it were apprehended and brought to trial. It marks an improved police service.

There is no reason why this community should have experienced any retrograde steps, with respect to crime, during the past year, as that same propensity to offend against the law which has prevailed throughout the country has been felt within the District. No item of criminal statistics speaks more commendably of the efficient work of the force than that contained in the Eighteenth Annual Report of the New York Police Justices, which shows but 54,093 persons summarily convicted or committed in that great city, with its grand police army, whereas in this District, with one-sixth the population and one-tenth the force, 17,864, or one-third the number of cases, were arraigned and convicted. A general comparison is made in the following table, which will doubtless be of interest, and it must be remembered that the cases included are arrests where convictions were had upon a preliminary hearing, and fines, commitments, and bonds were the penalties inflicted:

Cases held.	1892.	1891.	1890.	1889.	1888.
Abortion					1
Affray		3			378
Arson	376	478	498	622	1
Assault	2	1	3	2	1
Assault and battery	699	660	435	372	321
Assaulting an officer	871	897	1,243	1,125	1,254
Attempt at rape	48	37	44	24	25
Bigamy	7	4	4	3	8
Buying stolen goods	7	5		6	3
Conspiracy	1	1		4	9
Cohabiting with child under 16 years	5	8			9
Cruelty to animals	2	2	2		
Cruelty to children	355	226	217	209	313
Concealed weapons	2	2	4	4	4
Creating nuisance	229	194	176	170	154
Disorderly conduct	23	20	32	32	17
Destroying private property	5,409	4,180	3,874	2,491	1,905
Destroying public property	76	89	55	53	76
Enticing prostitution	29	22	20	21	10
Enticing child, etc.	17	12	11	11	10
Embezzlement	1	1	1		1
Exhibiting obscene pictures	23	17	50	20	14
Fast driving	2	2			2
Forgery	207	162	90	65	56
Fugitives from parents	35	11	24	8	27
Grand larceny	23	64	55	41	43
Habitual drunkard	72	55	60	63	81
Highway robbery	111	60	60	41	41
Housebreaking, day	16	5	4	6	13
	26	17	25	40	15



County.

County.

7

8



County.

County.

MAP  
OF THE

CITY OF WASHINGTON

County.

Potomac River.

Anacostia River.

5  
County.

Police District Area,  
72  $\frac{9}{16}$  Sq. Miles.





Cases held.	1892.	1891.	1890.	1889.	1888.
Housebreaking, night .....	81	52	81	57	87
Intoxication .....	3,393	3,636	3,515	3,481	3,865
Intoxication and disorderly .....	1,554	1,118	1,201	1,010	955
Interference with officers .....	4	11	10	4	3
Indecent exposure .....	271	232	237	157	199
Indecent assault .....	5	8	9	8	13
Keeping disorderly house .....	46	49	33	28	27
Keeping bawdy house .....	18	18	26	21	28
Keeping gaming house, etc .....	30	49	15	13	9
Larceny from person .....	65	45	27	47	26
Murder .....	11	7	13	17	15
False pretenses .....	72	39	38	40	7
Perjury .....	9	3	1	6	4
Petit larceny .....	639	666	649	666	661
Profanity .....	1,094	1,009	1,204	1,192	1,204
Rape .....	10	10	5	3	0
Receiving stolen goods .....	10	5	5	27	12
Selling lottery tickets .....	7	11	6	5	8
Threats .....	242	244	262	287	275
Vagrancy .....	2,008	1,752	1,764	1,566	1,322
Violation building regulations .....	164	32	5	3	9
Violation dog law .....	8	8	6	7	12
Violation gaming law .....	1	4	2	1	1
Violation policy law .....	132	187	111	35	79

There were no arrests for abortion, the most difficult of all crimes to apprehend and to secure conviction for, and affray cases were less numerous than for either one of the preceding five years. Arson was charged and sustained in 2 cases, an increase of 1 over the year 1891, but a decrease from the periods prior thereto. Assaults numbered 39 more than for the year 1891, a marked augmentation over the average, the scale showing a gradual increase in this particular offense.

Assault and battery aggregated 871 cases for 1892, a reduction of 21 over the year before, and several hundred less for each of the three years prior thereto. The number of cases growing out of assaults upon officers exceeds the figures for any one of the five years past, and clearly indicates increased activity on the part of the police.

Attempt at rape was the charge in 7 cases, an increase for any one of the three years previous, but 1 less than in 1888.

Bigamy was entered upon the records in 7 instances, an increase of 2 cases over the year 1891.

There was but 1 case of buying stolen goods which was held by the court. This may seem strange, but may be attributed to the difficulty of proving that stolen goods have been knowingly purchased. Hundreds of dollars' worth of stolen property has been recovered from second-hand dealers, but they escaped the law by pleading ignorance of the manner of its procurement.

Conspiracy was charged in 5 cases, 3 less than the year before, a class of offense rarely sustained in the upper court.

Cohabiting with a child under 16 years of age warranted the arrest of 2 persons, the same figures appearing for each of the two years preceding.

To the credit of the force and the agent of the Humane Society, it will be seen that good service was rendered in the prevention of cruelty to animals, the increase of arrests for this offense being far more than a hundred over the previous fiscal years.

Cruelty to children did not call for so many arrests as in times past, which may be attributed to a large extent to the severe measures meted out by the courts in former years.

There were 35 more cases under the heading of concealed weapons

than ever before, and it is quite likely that the enforcement of the new law making the practice a felony will soon reduce the offense to a minimum.

As in all large cities, persons creating a nuisance were compelled to contribute to the local revenue. Their shadows never grow less. The number of cases of this kind was 23, about the average.

Disorderly conduct cases ran up to 5,409, an increase of over 1,000, many of which resulted from the enforcement of the new police regulations.

Destruction of private property was not indulged in to the extent of former years, while destruction of public property or its injury has gradually increased, though not formidably.

Enticing prostitution resulted in 5 more cases than at any time previous, while there was but 1 case and 1 conviction for enticing a child to prostitution.

For embezzlement there were 6 more cases than in 1891.

For exhibiting obscene pictures but 2 cases were before the court, objectionable advertisements of this kind having been suppressed by this Department upon careful inspection of the placards which it was proposed to display.

Fast driving, about which so much has been said and printed, has been interfered with by the police whenever and wherever possible. The arrests for this offense reached 207, 45 more than for the previous year.

Forgery is becoming somewhat startling, for the number of cases has trebled that for the year 1891 and exceeds the figures for prior years. But this only evidences the extremes to which human beings will resort in order to obtain gain. This nature of crime, requiring education and intelligence, has to a great extent superseded the dangerous practice of housebreaking and safe-robbing.

About one-third the number of runaway children has been apprehended when compared with former years.

While there was a greater number of cases of grand larceny for which persons were apprehended, still the arrests were not as numerous as in 1890 and 1888, and, when it is remembered that a single individual was in several instances responsible for more than one case, the increase over the year 1891 is about in keeping with the growth of population and improved facilities for securing guilty parties.

Against habitual drunkards 111 cases were recorded, as against 60 and 60 and 41 and 41, respectively, for the four preceding years. It is possible, but not at all probable, that one habitual drunkard may have been arrested 111 times during the fiscal year and thus increased the record.

Highway robbery was more extensively perpetrated than for several years before, and in a measure is to be accounted for by the practice on the part of women and children of carrying for display, as well as convenience, fancy reticules and pocketbooks. Pension pay day also contributes largely to this class of crime. Old soldiers make low saloons their places of resort, where they spend a goodly part of their quarterly stipend for drink and become game for thieves, who in and out of season study their opportunities. If the public squares were better lighted at night there would be fewer offenses of this class.

Doors and windows left open invite the housebreaker, though but 9 more cases were on the docket than the year before, and on the whole there was a reduced number of arrests.



Of housebreaking by night there were 81 cases scored, a considerable number more than for the year 1891, but a fewer number than for 1888 and 1890. The extreme penalties inflicted by a wise court have to some degree diminished this nefarious work.

In 1888 there were 3,865 cases of intoxication; in 1889, 3,481; in 1890, 3,515; in 1891, 3,636; and during the past twelve months, 3,393, a considerable falling off. Getting drunk is not a violation of the statute, and those who offend are simply secured until sober and are then released by the police, unless they come under the habitual class or are disorderly. There was an increased number of arrests for intoxication and disorderly, an increase which has been gradual during the past five years. Disorder frequently follows arrests for intoxication. Unwilling, if not unable, to appreciate that the police, in the majority of such cases, are endeavoring to protect the intoxicated individual from humiliation, if not robbery, he becomes boisterous, unruly, and aggressive; hence his arrest.

While there were more cases of arrest for assaulting police officers, there was a less number of arrests for interfering with them while in discharge of their duty.

Indecent exposure covers a multitude of violations, and the cases for the last year were 271. Were the District provided with public closets, there would be a less number of arrests under this charge.

There were fewer arrests for indecent assaults than for five years past.

Three less cases than for 1891 are borne on the record for keeping disorderly houses, but on the whole there were more arrests for this charge than for some years previous.

Eighteen cases were made by the police against persons engaged in keeping bawdy houses, under the specific law relating to the same. Often, where proof is wanting under this law, such persons are arrested for keeping disorderly house.

The number of cases for keeping gaming houses brought before the police court and held, during the year, numbered thirty, and would have aggregated many more were the Department enlightened as to its status with relation to gambling clubs. Until a case of the kind is disposed of in the upper court, the police are in the dark regarding their right to raid. Cases have been made one after another, but as yet have not been disposed of by the courts.

The contemptible business of larceny from the person has increased gradually, as the arrests will indicate. There were about twenty more cases of the kind during the fiscal year 1892 than for any one of five years past.

There were eleven cases of murder held during the year. In 1891 there were 7; 1890, 13; 1889, 17, and 1888, 15.

As in forgery and embezzlement, there has been an increased number of cases of false pretenses.

A bolder stand has been made against perjury, the arrests by the police during the year exceeding in number those made for any one of the preceding five years.

There were less arrests for petit larceny, although with our large, idle population, many of them young and contaminated from evil associations, violations of this kind will be constant.

The public morals have been shocked just as frequently by profanity as in the past, the police court apparently having no terror for him who would impiously vent his wrath.

There were ten cases of rape, exactly the same as for the year 1891.



It is a gratification to know that the perpetrator in each instance was arrested.

Ten cases were made for receiving stolen goods, and if the police were as well prepared, under the law, to arrest for buying such goods, there would be less stealing.

More vagrants by nearly 300 were claimed by the police, but despite their efforts in this direction the number of undeserving and shiftless does not seem to diminish. During the cold weather the workhouse and jail are often looked to as desirable resorts by this class.

The new building regulations issued by the Commissioners have been rigidly enforced, as will be seen by the statistics.

There were 132 cases of arrests for violations of the policy law, all of which were held by the police court.

The most interesting study presented in connection with the department work for the fiscal year 1892 is the census taken under its supervision by members of the force, when considered in conjunction with cases of arrest. The first precinct, in which are located the principal business houses, as well as the places of low resort, although having the smallest population, contributed the greatest number of cases of arrest. Such is true of all police districts located in the central or commercial sections of large cities. Of the total cases 1,226 were dismissed, most of them being for intoxication and not subject to judicial action.

In the second precinct there was almost a corresponding number of cases, although the population is shown to be about three times that of the first, about one third being colored.

The third precinct, with a population almost equal to the second, had many less arrests. This precinct, like the second, contains many private residences, the element which comes in daily contact with the police being largely confined to distinct localities.

The fourth precinct, embracing Southwest Washington, with an almost equal population of white and colored, made the largest contribution to the police court, there having been 4,179 cases during the year, nearly 3,000 of which were held by the judges.

The fifth precinct, with the largest population in the District, is distinguished by the exceedingly orderly showing made by the statistics of arrests. This precinct includes Southeast Washington, Anacostia, and vicinity.

Like the first, the sixth police precinct has an extensive business element, and also the railroad depots, with a population, however, double that of the first. Here there were comparatively few arrests.

The seventh precinct, which embraces the city of Georgetown and a large part of the county, with a population of 19,319, made a smaller showing of arrests than any of the precincts above referred to, but with a less population to care for.

The eighth precinct, that section of the district north of R street and Bennings road, with 36,339 residents, made an almost equal number of cases for court as the sixth, which has 12,000 less inhabitants. The eighth precinct is, however, composed largely of suburban villages, and is without the numerous railways, hotels, and business places, in the vicinity of which there is always more or less violation of law.

The ninth precinct, comprising Northeast Washington, with 23,003 inhabitants, made an excellent showing for order, sending to the court but 490 cases which were held upon preliminary hearings.

Three hundred and forty-five cases were convicted out of 479 made by the detective corps. This branch of the service is devoted to mak-

ing arrests for criminal violations entirely, and therefore does not come in for comparison in connection with population.

Precinct.	Arrests.				Population.		
	Cases of arrests.	Nol. prosq'd.	Dis-mitted.	Held.	White.	Colored.	Total.
First .....	3,847	185	1,226	2,433	10,700	1,945	12,772
Second .....	3,350	105	733	2,462	22,641	14,081	37,343
Third .....	2,602	152	732	1,718	18,017	14,377	32,935
Fourth .....	4,179	174	1,010	2,995	19,155	14,353	34,327
Fifth .....	2,569	143	604	1,822	26,580	10,675	38,127
Sixth .....	2,954	147	1,166	1,641	19,016	4,834	24,266
Seventh .....	2,431	121	876	1,434	14,238	4,671	19,319
Eighth .....	2,478	194	653	1,631	21,718	13,699	36,339
Ninth .....	624	47	87	490	18,179	4,233	23,003
Detective corps .....	479	53	81	345			

#### CHARITY.

The police had the usual demands for charity during the last twelve months, and succeeded in relieving about 3,900 persons, at an expenditure of \$1,589.25. While the department, like other organizations engaged in extending relief to the poor, suffered impositions, it was only where investigation left a doubt, and the subject in want was given that benefit. Among those who called in person begging assistance were some who had seen and experienced better days. While there were those who claimed that the world owed them a living, who would not work, and who frequently renew their appeals for assistance, peremptory refusal has reduced their number to a minimum. Women with drunken husbands, mothers and children with sick fathers at home, overtaken by overdue rent, were frequent visitors. While many of them could secure bread and meat to keep them from starving, the shadow of the constable after the rent was their constant torment and anxiety. There were lone women whose poverty reached the attention of the authorities by chance. The last-named class as a general thing were loath to accept charity for fear that their names would appear upon the pages of the police record. The presence of hungry and cold children made the mother abandon any such thought, if she had it. There were men with trades who had families dependent upon them, with willing hands, but no one to give them work.

Fuel and food were furnished upon orders issued by the lieutenants where cases were found worthy, and some were given small financial aid from the insufficient apportionment made for the purpose. At the several station houses 7,728 lodgers were accommodated.

Each year's experience in dealing with the poor of the District emphasizes the necessity for a bureau of charities, where all such work might be concentrated, where the expenses might be reduced to the lowest figure, and relief extended to the greatest deserving number; where a warehouse for the reception of flour and meal, a yard for wood and coal donations, and a barrack for lodgers, with soup, coffee, beans, and bread, might be provided. Let a day's labor by boy or man in the woodyard entitle him to temporary board and lodging. Food and fuel could be distributed to worthy families, after investigation proved them such. The policeman or citizen on the street could hand the unfortunate one a ticket, good for a meal and lodging, in lieu of the pecuniary aid often given where it does the least good. The capital is behind other large cities of the country in its methods of dealing with the everyday poor, and here is furnished quite an extensive field for thought and practice.



## CHIEF CLERK.

The report of the chief clerk, who is also property clerk, gives sound reasons why the two offices should be separated. This can only be done through an appropriation by Congress for an additional employé to perform the duties of property clerk, which are clearly defined by law. During the year just closed the financial responsibility of the chief clerk amounted to \$507,261, while the estimated value of lost, stolen, and abandoned property placed in his custody as property clerk aggregated \$30,794.47.

## SURGEONS.

The board of surgeons examined 349 applicants for appointment as policemen, only 83 of whom were accepted; a percentage of 76.4 adversely passed upon.

## SANITARY OFFICE.

The report of the officer in charge of the police sanitary work, which involves the disposition of paupers, the insane, and the sick, as well as the transportation toward or to their homes of indigent persons about to become charges upon the District of Columbia, gives facts and figures which evidence such increased responsibility and labor as will eventually necessitate the establishment of a bureau, with its attendant supervision and clerical assistance. That official cites the growing disposition, acquired by the peculiar classes he must investigate and deal with, to impose upon the Department; and a conscientious performance of his duties, which require a full report to the superintendent of such cases as call for an expenditure of appropriation, makes his labor tedious and slow. Tramps and imposters have been turned away in their efforts to secure that charity which was provided for meritorious cases. The army of cranks is represented to have decreased to 13 in the number of calls for assistance, which in a measure may be ascribed to quiet in the political world. Transportation was furnished to 665 persons, or 43 more than for the year preceding. Of this number 126, or about one-fifth, were ex-soldiers and sailors who came here under the delusion that their presence would secure prompt granting of their pension claims. Disappointed and destitute, those deserving were thus aided. It is suggested, in this connection, that the veteran should be slow to come to the capital on such errands and scorn the advice to the contrary, so often held out by irresponsible persons for mercenary motives. Were not the small appropriation carefully husbanded, it would be easier to secure a pension than police transportation.

The various hospitals admitted through the agency of this office 2,577 persons, 5 less than during the year 1891, when la grippe was epidemic, which establishes the fact that the sick list is annually added to. In no small degree the increase is fastened upon the District by the contiguous States of Maryland and Virginia, persons sick and destitute coming from those States for hospital admittance here. When the crowded condition of our institutions is considered the injustice of this practice becomes apparent. This department, in the interest of humanity, must not turn the sick upon the streets and the public. The report shows that 187 residents of Virginia were given hospital permits here during the year, 63 more than the year previous, while Maryland furnished 139 applicants, an increase of 30.



Twelve less subjects were committed to the Government Asylum for the Insane than for the prior fiscal year, there being a total of 159. The publicity given cases of this kind through trial by jury, which has been a comparatively recent practice in the District, may have tended to diminish charges of insanity. Another peculiarity in relation to the insane is that they manifest their presence more numerously at the capital during inauguration times and years of political excitement. The decrease, under any circumstances, is encouraging. The report refers to the want of provisions for temporary care of the insane. The department has already arranged for an improved method for the handling of the demented at the several police stations.

#### HUMANE WORK.

The number of cases investigated by the officer detailed to assist the Humane Society in the enforcement of the law for the protection and care of children was 311. Twenty abandoned children were provided for and 194 were taken from parents or guardians and committed to asylums and reformatories. The suggestions of the agent will commend themselves, as well to the just as to the compassionate.

#### POLICE BOAT.

The harbor master reports the police boat inadequate in size and equipment for the varied duties for which it is used. As urged by him, an appropriation should be made for a vessel furnished with all the modern police, harbor, and fire appliances.

#### HACKS.

The disproportion between the number of licensed passenger vehicles and the number of authorized hack stands is somewhat striking, the vehicles, all told, aggregating 574, the stands, 25. The latter will have to be gradually added to, otherwise "crabbing" (or soliciting passengers) on the avenues and streets will become prevalent. The selection of stands is a delicate matter, as they almost invariably elicit protests from those who live in proximity to them. Yet the hackman must make a living, and he who wants to ride ought to be accommodated, but at the same time care must be taken not to disturb the peace and quiet of a resident neighborhood. The hack service, to be properly regulated, demands considerable attention, as may be judged from the report of the officer who during the last twelve months made 394 visits to the various stands, inspected 574 vehicles, brought to trial 84 violators of the law, and amicably adjusted 33 cases of difference between passengers and drivers.

Respectfully submitted.

WM. G. MOORE,  
Major and Superintendent Metropolitan Police,  
District of Columbia.



## REPORT OF THE CHIEF, ALSO PROPERTY CLERK.

METROPOLITAN POLICE DEPARTMENT,  
CLERK'S OFFICE,  
Washington, D. C., July 1, 1892.

SIR: For fourteen years the duties of the chief clerk have devolved upon the property clerk. In other words, in addition to receiving, caring for, and disposing of lost, stolen, and abandoned property, the property clerk has been required to exercise a general supervision over the clerical work of the department, keep all records at headquarters, make all disbursements for salaries, for the relief of the poor, detection and suppression of crime, and for police uniform clothing; collect, deposit, and account for all rewards, fines imposed by way of discipline upon members of the force, and carry out through his office the orders of the superintendent.

The general clerical work, or that devolving upon the property clerk as chief clerk, has reached such proportions as to require that Congress make early provision for a division of these duties. Their strict and correct conduct already calls for the creation of two clerkships in lieu of the combination office. That such is a necessity is emphasized by the estimated value of lost, stolen, and abandoned property which was placed in his custody the last year, \$30,794.47, while as chief clerk his financial responsibility exceeded \$507,261. No provision is made for a division of this responsibility, the property clerk being a bonded officer, and, in case of his illness or absence, his liability remains the same, while others must be selected to assume his duties.

In the work at headquarters the chief clerk has been faithfully and earnestly assisted by Mr. J. A. Kemp, the stenographer, and by the following detail of police officers: H. L. Gessford, keeping daily record of all communications; W. M. Mattingly, miscellaneous work; C. E. James, record of arrests, and H. P. Cattell, caring for property and attending courts and grand jury. That these gentlemen have had their full capacities taxed is evident from the fact that but two of them have had fifteen days' leave from their work during the last year.

The various statistics bearing upon the detection and prevention of crime, property, and accounts are herewith included.

Very respectfully,

RICHARD SYLVESTER,  
Chief, also Property Clerk.

Maj. WILLIAM G. MOORE,  
Superintendent Metropolitan Police, District of Columbia.

### LOST, STOLEN, AND ABANDONED PROPERTY.

*Estimated value of money and property returned to the property clerk, and the disposition of same, for the fiscal year 1892.*

July.....	\$2, 136. 50
August.....	4, 418. 58
September.....	1, 724. 84
October.....	2, 039. 02
November.....	1, 904. 80
December.....	2, 419. 39
January.....	1, 428. 61
February.....	3, 875. 57
March.....	3, 922. 04



# 84 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

April .....	\$1,580.28
May .....	2,309.46
June .....	3,035.38
Total .....	30,794.47
Delivered to owners by order of the court or upon proof of ownership .....	\$22,359.80
Delivered to claimants on bond .....	6,310.78
Sold .....	68.85
	28,739.43
Estimated value of balance .....	2,055.04

## DISCIPLINE.

*Total number of trials of members of the force for violation of the rules and regulations, removals, resignations, and retirements on pension, for the fiscal year ending June 30, 1892.*

Absence from duty without leave .....	1
Absence from duty without leave and neglect of duty .....	1
Conduct unbecoming an officer .....	42
Conduct unbecoming an officer and intoxication .....	10
Gross neglect of duty .....	10
Gross neglect of duty and conduct unbecoming an officer .....	1
Gross neglect of duty and careless loss of revolver .....	1
Inefficiency .....	3
Inefficiency and conduct unbecoming an officer .....	1
Intoxication .....	5
Intoxication, conduct unbecoming an officer, and violation of paragraphs 36, 135, and 138 of the Manual .....	1
Neglect of duty .....	25
Neglect of duty and violation of paragraphs 135 and 138 of Manual .....	1
Neglect of duty and conduct unbecoming an officer .....	4
Nonpayment of debt .....	3
Violation of circular order of October 28, 1884 .....	1
Violation of General Order 505 .....	1
Violation of General Order 453 .....	1
Violation of paragraph—	
No. 36 of Manual .....	6
No. 23 of Manual .....	1
No. 135 of Manual .....	1
No. 41 of Manual .....	1
No. 138 of Manual .....	2
No. 133 of Manual and conduct unbecoming an officer .....	1
No. 138 and gross neglect of duty .....	1
Violations of paragraphs—	
Nos. 36 and 135 of Manual .....	1
Nos. 9 and 135 of Manual .....	1
Nos. 135 and 138 of Manual .....	18
Nos. 36, 135, and 138 of Manual .....	21
Nos. 134 and 135 of Manual .....	2
Willful disobedience of orders .....	1
Total .....	169

## Disposition.

Fined .....	78
Fined and warned .....	5
Charges dismissed .....	56
Required to pay debt .....	3
Reduced to class 1 .....	1
Suspended for twelve days .....	1
Removed from the force .....	15
Allowed to resign .....	4
Warned .....	6
Total .....	169

CHANGES IN THE FORCE.

June 30, 1891:		
Full complement.....		408
Total force.....		406
June 30, 1892:		
Resigned (voluntarily and under charges) .....	26	
Removed (on charges, without charges, and because of desertion)..	21	
Pensioned .....	3	
Died.....	8	
		58
Increased by act of Congress.....		348
Vacancies (including two existing June 30, 1891) .....		10
		60
Appointments .....		418
		70

ORDERS.

General orders issued .....	82
Special orders issued.....	33
Circulars issued .....	31







Table of arrests—Continued.

## OVER TWENTY-ONE YEARS OF AGE—Continued.

Offenses.	Males.	Females.	White.	Colored.	Fined and paid.	Workhouse—default.	Fail—default.	Sent to workhouse.	Sent to jail.	Sent to grand jury.	Personal bonds taken.	Placed under bonds.	Nol-prossed.	Dismissed.	Not disposed of.	To military authorities.	To naval authorities.	To United States marshal.	To parents or friends.	Sentence suspended.	Return to workhouse.	To almshouse.	Delivered to Illinois authorities.	Delivered to Maryland authorities.	Delivered to Pennsylvania authorities.	Delivered to Virginia authorities.	Escaped.	To insane asylum.	Total.
Refusing to assist officer.....	1	1	1											1	1														1
Selling liquor to minors.....	7				1									5	1														7
Suspicion.....	507	52	204	50		3	1	79	2	2	44	2	13	410										2		1			559
Sodomy.....	2		2										1	1															2
Selling lottery tickets.....	12		12		2								3	2	5														12
Selling liquor to inmates of Soldiers' Home.....	4	1	5											4	1														5
Throwing missiles.....	1																												1
Threats.....	275	84	145	214	2	1	16			32	130	23	67	87	2														359
Trespass.....	109	7	73	43	41	41	2	1			6		6	13	4						2								116
Vagrancy.....	1,126	412	862	676	1	111	1	988			289	6	20	111	8						2	1							1,538
Violation of—																													
Building regulations.....	193	1	173	21	113						19		14	16	28						4								194
Cigarette law.....	5		4	1	3						2																		5
Civil-rights law.....	1		1								1																		1
Dog law.....	36	10	24	22	5								40		1														46
Game law.....	1		1		1																								1
Hack law.....	66	1	41	26	27	1					8		10	18	2					1									67
Humane law.....	3	2	3	2							2			3															5
Health ordinances.....	15	1	13	3	6	2					1			7															16
Internal-revenue law.....	1	1		2						1			1																2
License law.....	21	3	20	4	10						1		5	4	4														24
Pawnbrokers' law.....	15	1	16		5								1	2	4					4									16







Petit larceny.....	191	22	49	164	21	1	25	44	14	34	47	4	15	8	16	25	71	4	3	2	1	1,978
Profanity.....	22	8	7	23	10	7	.....	.....	2	4	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	213
Suspicion.....	124	7	24	107	.....	.....	6	1	5	4	102	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	30
Threats.....	4	1	.....	5	.....	.....	.....	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	131
Trespass.....	49	3	23	29	19	6	.....	.....	13	3	10	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5
Throwing missiles.....	17	.....	1	16	11	.....	.....	.....	5	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	52
Vagrancy.....	118	46	12	152	.....	3	62	.....	40	9	19	5	20	1	.....	.....	.....	.....	3	.....	.....	17
Violation of—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	164
Health ordinances.....	1	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Police regulations.....	41	1	14	28	30	2	.....	.....	3	1	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	42
Police law.....	9	1	.....	10	4	.....	1	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
Other District of Columbia ordinances.....	149	4	55	98	93	15	2	.....	11	4	18	4	3	2	.....	.....	.....	.....	.....	.....	.....	153
Witnesses held for the United States.....	5	.....	.....	5	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Total.....	1,775	203	512	1,466	532	259	58	72	231	116	456	45	71	25	16	25	71	4	3	2	1	1,978

Table of arrests—Continued.

UNDER TWENTY-ONE YEARS OF AGE.

Offenses.	Male.	Female.	White.	Colored.	Fined and paid.	Workhouse—default.	Jail—default.	Sent to workhouse.	Sent to jail.	Sent to grand jury.	Personal bonds taken.	Placed under bonds.	Not-prosessed.	Dismissed.	Not disposed of.	To insane asylum.	To United States marshal.	To parents or friends.	Sentence suspended.	To Reform School.	To Industrial Home School.	Returned to work-house.	Delivered to Maryland authorities.	Delivered to Virginia authorities.	Total.
Arson.....	1			1						1			1		6										1
Aiding fugitive to escape.....	1			1									1		5										1
Affray.....	92	15	35	72	48	1	26		1		2		6	22	1				1						107
Assault.....	211	52	52	211	82		49		23		8		24	77											263
Assault and battery.....	246	59	53	252	88	1	65		47		9		22	67											305
Assault with intent to kill.....	41	1	4	38			2		2	21			9	3											42
Assaulting officer.....	6		2	4			3		1				1												6
Attempt at larceny.....	2			2										2											2
Attempt at rape.....	3			3						1															3
Cobabiting with female child under 16 years.....	1			1										1											1
Cruelty to animals.....	47		11	36	27	12							5	5	1				2						47
Concealed weapons.....	79	2	8	73	3	47		1	1		5		2	18	3				1						81
Contempt of court.....	20	16	5	31	8	3	5						2	18											36
Creating a nuisance.....	1													1											1
Disturbing public worship.....	3			3		2								1											3
Disorderly conduct.....	1,526	325	371	1,480	911	620		8			104		36	150	8				13	1					1,851
Destroying private property.....	16	1	6	11	5	7	1							3	1										17
Destroying public property.....	8	1	5	4	4	4	1				1		1	1											9
Enticing prostitution.....		6		6			2																		6
Embezzlement.....	7		6	1						4			1	2											7
Fast driving.....	46		16	30	35	6								4					1						46
Forgery.....	4		2	2						4															4
Fornication.....		1		1										1											1
Fugitive—																									
Justice.....	23		3	20										2						2					23
Parents.....	7	9	12	4										6				9				8	4	1	16
Reform School.....	3			3																3					3
Grand larceny.....	29	7	20	16						20			10	5	1										36
Habitual drunkard.....	5										1														5
Highway robbery.....	8		1	7				4		8															8
Housebreaking—																									
Day.....	14	3	5	12						13	1		1	1	1										17
Night.....	41	1	3	39					1	32			3	1	3										42
Intoxication.....	134	15	76	73										149											149
Intoxication and disorderly.....	162	25	78	109	76	106				2				2					1						187





## SUMMARY.—TABLE OF ARRESTS.

Offenses.	Total.	White.	Colored.	Not prossed.	Dis- missed.	Cases held.
Aiding fugitive to escape.....	1		1	1		
Affray.....	499	250	249	32	91	376
Adultery.....	1		1		1	
Arson.....	3		3	1		2
Assault.....	1, 148	425	723	128	321	699
Assault and battery.....	1, 373	450	923	147	355	871
Assault intent to kill.....	116	25	91	17	13	86
Assaulting officer.....	55	20	35	1	6	48
Attempt at larceny.....	4	1	3	1	3	
Attempt at rape.....	11	2	9	2	2	7
Bigamy.....	8	1	7		1	7
Buying stolen goods.....	3	2	1		2	1
Conspiracy.....	5	3	2			5
Cohabiting with female child under 16 years.....	10	3	7	3	5	2
Cruelty to animals.....	409	226	183	7	47	355
Cruelty to children.....	4	2	2	1	1	2
Criminal libel.....	2	2				2
Concealed weapons.....	290	90	200	6	55	229
Contempt of court.....	216	97	119	9	114	93
Creating a nuisance.....	29	17	12	2	4	23
Disturbing public worship.....	3		3		1	2
Disorderly conduct.....	6, 057	1, 936	4, 121	125	523	5, 409
Desertion.....	3	3			1	2
Destroying private property.....	140	73	67	21	43	76
Destroying public property.....	34	19	15	1	4	29
Enticing prostitution.....	21	3	18	1	3	17
Enticing female child to house of prostitution.....	1	1				1
Embezzlement.....	46	26	20	15	8	23
Exhibiting obscene pictures.....	2	2				2
Fast driving.....	224	128	96		17	207
Forcible entry.....	3	2	1	3		
Forgery.....	41	22	19	3	3	35
Fornication.....	3		3	1	2	
Fugitives:						
Justice.....	73	27	46		4	69
Parents.....	39	23	16		16	23
Reform school.....	5		5			5
Insane asylum.....	2	2				2
Grand larceny.....	133	79	54	40	21	72
Grave robbery.....	2	2				2
Habitual drunkard.....	120	97	23	2	7	111
Highway robbery.....	22	2	20		6	16
Housebreaking:						
Day.....	39	12	27	10	3	26
Night.....	117	20	97	29	7	81
Intoxication.....	3, 393	2, 678	715		3, 393	
Intoxication and disorderly.....	1, 604	890	714	15	35	1, 554
Interfering with officer.....	10	5	5	2	4	4
Interfering with District of Columbia official.....	2		2	1		1
Interfering with United States witness.....	4	4			2	2
Incorrigibility.....	30	13	17	1	9	20
Indecent exposure.....	289	153	136	5	13	271
Indecent assault.....	10	3	7		5	5
Insanity.....	73	47	26		29	44
Keeping disorderly house.....	81	22	59	11	24	46
Keeping bawdy house.....	20	8	12		2	18
Keeping gambling house or table.....	41	24	17	6	5	30
Keeping unlicensed bar.....	150	109	41	13	43	94
Keeping open bar Sunday.....	41	34	7		10	31
Keeping dangerous dog.....	3	3		1	2	
Loud and boisterous.....	38	11	27	4	4	30
Larceny from person.....	94	32	62	14	15	65
Larceny from United States.....	7	1	6	6		1
Malicious mischief.....	16	12	4	6	3	7
Murder.....	14	9	5		3	11
Obstructing sidewalk.....	1		1			1
Obtaining money or goods by false pretense.....	108	66	42	24	12	72
Perjury.....	10	2	8		1	9
Passing counterfeits.....	2	1	1	2		
Petit larceny.....	1, 004	263	741	147	218	639
Profanity.....	1, 262	459	803	62	106	1, 094
Rape.....	12	6	6	2		10
Resisting officer.....	4		4		1	5
Receiving stolen goods.....	20	8	12	5	5	10
Refusing to pay hack hire.....	43	38	5		33	10
Refusing to assist officer.....	2	2			2	
Selling liquor to inmates of Soldiers' Home.....	5	5			4	1
Selling liquor to minors.....	7	7			5	2
Suspicion.....	995	343	652	24	726	245

## SUMMARY.—TABLE OF ARRESTS—Continued.

Offenses.	Total.	White.	Colored.	Nol- prossed.	Dis- missed.	Cases held.
Sodomy.....	4	2	2	2	1	1
Selling lottery tickets.....	12	12		3	2	7
Threats.....	420	157	263	78	100	243
Trespass.....	220	110	110	12	30	178
Throwing missiles.....	22	3	19		1	21
Vagrancy.....	2, 223	953	1, 280	39	186	2, 008
Violation of—						
Building regulations.....	194	173	21	14	16	164
Civil rights law.....	1	1				1
Cigarette law.....	6	4	2			6
Dog law.....	48	24	24	40		8
Game law.....	1	1				1
Humane law.....	6	3	3		3	3
Hack law.....	76	48	28	10	21	45
Health ordinances.....	17	13	4		7	10
Internal-revenue law.....	2		2	1		1
License law.....	24	20	4	5	4	15
Oleomargarine law.....	2	2				2
Police regulations.....	581	347	234	24	60	497
Policy law.....	190	51	139	34	24	182
Postal law.....	13	13				13
Pawnbrokers' law.....	16	16		1	2	13
Water law.....	31	22	9	1	5	25
Other District of Columbia ordinances.....	1, 419	876	543	120	181	1, 118
Witnesses held for the United States.....	416	211	205	1	410	5
Total.....	26, 666	12, 415	14, 251	1, 345	7, 457	17, 864

## STATEMENT OF ARRESTS.

Total number of cases of arrest..	26, 666	Can not read and write.....	6, 079
White.....	12, 415		26, 666
Colored.....	14, 251	Males—	
	26, 666	Married.....	7, 698
		Single.....	14, 775
Male.....	22, 473	Females—	
Female.....	4, 193	Married.....	1, 734
	26, 666	Single.....	2, 459
Read and write.....	20, 587		26, 666

## Callings as given by those arrested.

Army officer.....	1	Brakemen.....	6
Auctioneers.....	2	Brokers.....	8
Awningmakers.....	2	Brickmakers.....	11
Actresses.....	3	Bartenders.....	12
Actors.....	5	Boilermakers.....	16
Attorneys.....	5	Builders.....	21
Artists.....	13	Bookbinders.....	25
Architects.....	8	Bakers.....	61
Apprentices.....	49	Butchers.....	120
Agents.....	358	Blacksmiths.....	238
Banker.....	1	Bricklayers.....	408
Bridge-builder.....	1	Barkeepers.....	199
Basketmakers.....	2	Constable.....	1
Bellboys.....	4	Carriagetrimmer.....	1
Butlers.....	8	Cowboy.....	1
Bookkeepers.....	9	Coachmakers.....	4
Boatmen.....	11	Carvers.....	2
Bootblacks.....	59	Copyists.....	2
Barbers.....	221	Calkers.....	3
Broommakers.....	3	Cabmen.....	4
Brewers.....	4	Cabinetmakers.....	5



*Callings as given by those arrested—Continued.*

Confectioners .....	5	Midwife .....	1
Cattlebrokers .....	8	Miners .....	2
Coopers .....	10	Managers .....	2
Caterers .....	13	Manufacturers .....	2
Collectors .....	14	Ministers .....	5
Coachmen .....	24	Marines .....	16
Conductors .....	28	Musicians .....	33
Cigarmakers .....	45	Molders .....	42
Cooks .....	99	Messengers .....	45
Contractors .....	224	Machinists .....	111
Carpenters .....	570	Merchants .....	439
Clerks .....	995	Nurses .....	12
Dentist .....	1	Newsboys .....	102
Drummer .....	1	No calling .....	1, 021
Decorators .....	2	Overseer .....	1
Dyers .....	2	Organ-grinder .....	1
Doctors .....	7	Pilot .....	1
Dressmakers .....	12	Preacher .....	1
Draftsmen .....	14	Potter .....	1
Dairymen .....	17	Polishers .....	2
Druggists .....	37	Pressmen .....	2
Drivers .....	1, 786	Puddlers .....	2
Editors .....	2	Plate-printers .....	2
Expressmen .....	2	Pawnbrokers .....	7
Engravers .....	2	Photographers .....	11
Electricians .....	16	Policemen .....	23
Engineers .....	77	Pavers .....	24
Foundryman .....	1	Physicians .....	32
Fakirs .....	2	Policy-writers .....	36
Fish dealers .....	3	Paper-hangers .....	41
Fishermen .....	6	Porters .....	56
Florists .....	14	Peddlers .....	67
Foremen .....	19	Plumbers .....	224
Firemen .....	47	Plasterers .....	279
Farmers .....	202	Printers .....	300
Gambler .....	1	Painters .....	406
Guides .....	12	Prostitutes .....	985
Gardeners .....	30	Rag-picker .....	1
Grocers .....	105	Rope-maker .....	1
Hatter .....	1	Roofer .....	1
Horse dealer .....	1	Riggers .....	5
Horseshoers .....	5	Real estate agents .....	8
Harness-makers .....	12	Restaurant-keepers .....	14
Hodcarriers .....	38	Reporters .....	23
Hostlers .....	38	Special officer .....	1
Hotel-keepers .....	17	Scientist .....	1
Hucksters .....	314	Stableman .....	1
Housekeepers .....	991	Silver-platers .....	2
Inspector .....	1	Saddlers .....	2
Ironworkers .....	2	Stair-builders .....	2
Jockeys .....	2	Stenographers .....	2
Journalists .....	3	Silversmiths .....	2
Janitors .....	7	Slaters .....	2
Junk dealers .....	12	Surveyors .....	4
Jewelers .....	21	Salesmen .....	6
Liquor dealer .....	1	Students .....	6
Locksmith .....	1	Superintendents .....	7
Lithographers .....	2	Sailmakers .....	7
Linemen .....	3	Steam-fitters .....	11
Letter-carriers .....	5	Seamstresses .....	12
Laundresses .....	22	Saloon-keepers .....	17
Liverymen .....	29	Stonemasons .....	25
Lawyers .....	106	School girls .....	58
Laundrymen .....	142	Sailors .....	94
Laborers .....	9, 668	Shoemakers .....	140
Model maker .....	1	Stonecutters .....	166
Miller .....	1	Soldiers .....	305
Mason .....	1	Schoolboys .....	729

*Callings as given by those arrested—Continued.*

Servants .....	1,856	Undertakers .....	5
Storekeepers .....	131	Upholsterers .....	24
Tinker .....	1	Unknown .....	231
Tout .....	1	Veterinary surgeons .....	2
Tanners .....	2	Weavers .....	1
Telegraphers .....	3	Whitewashers .....	3
Teamsters .....	5	Wheelwrights .....	3
Teachers .....	14	Watchmen .....	48
Thieves .....	37	Waiters .....	285
Tailors .....	64		
Tinners .....	138	Total .....	26,666
Umbrella-maker .....	1		

*Nativity as given by those arrested.*

Algiers .....	2	India .....	1
Australia .....	1	Norway .....	2
Austria .....	17	Persia .....	2
Africa .....	1	Poland .....	10
Arabia .....	8	Prussia .....	1
Belgium .....	1	Russia .....	61
Canada .....	19	South America .....	1
China .....	147	Scotland .....	42
Denmark .....	6	Spain .....	2
England .....	74	Sweden .....	11
France .....	40	Switzerland .....	14
Germany .....	369	Turkey .....	1
Greece .....	54	United States, white .....	10,478
Holland .....	1	United States, colored .....	14,251
Hungary .....	2	Wales .....	4
Ireland .....	936		
Italy .....	107	Total .....	26,666

I

## SUMMARY.

Number of cases .....	26,666
Fined and paid .....	7,901
Fined and sent to workhouse in default .....	3,814
Fined and sent to jail in default .....	761
Sent to workhouse .....	1,626
Sent to jail .....	652
Sent to grand jury .....	477
Personal bonds taken .....	1,672
Placed under bonds .....	65
Nolle prosequed .....	1,345
Dismissed .....	7,457
Not disposed of .....	434
Sent to insane asylum .....	40
Delivered to naval authorities .....	1
Delivered to military authorities .....	1
Delivered to United States marshal .....	29
Delivered to parents or friends .....	31
Sentence suspended .....	213
Returned to workhouse .....	29
Sent to reform school .....	82
Sent to industrial home school .....	5
Sent to newsboys' home .....	3
Delivered to Illinois authorities .....	1
Delivered to Maryland authorities .....	19
Delivered to New York authorities .....	1
Delivered to Pennsylvania authorities .....	1
Delivered to Virginia authorities .....	11
Escaped .....	1
Sent to almshouse .....	1
Total .....	26,666

## SUMMARY—continued.

United States cases:	
Fines imposed .....	\$23,387.75
Fines paid .....	10,951.75
To jail default .....	11,401.00
Execution suspended .....	323.00
Personal bonds .....	712.00
Total .....	23,387.75
District of Columbia cases:	
Fines imposed .....	\$75,261.00
Fines paid .....	42,568.00
To workhouse default .....	28,346.00
Execution suspended .....	2,690.00
Personal bonds .....	1,657.00
Total .....	75,261.00

## VISITS OF GENERAL OFFICERS.

Commissioners, District of Columbia .....	1
Superintendent .....	48
Captain .....	905
Lieutenant and inspector .....	947
Police surgeons .....	552

## ESTIMATED VALUE OF MONEY AND PROPERTY THAT CAME INTO THE POSSESSION OF THE SEVERAL PRECINCTS DURING THE YEAR ENDING JUNE 30, 1892.

Amount received .....	\$275,625.79
Returned to—	
Owners .....	96,560.34
Property clerk .....	30,794.47
Poundmaster .....	699.00
Taken from prisoners and returned—	
Order lieutenant .....	93,028.91
Order police judge .....	245.82
Collateral returned to—	
Marshal at police court .....	12,959.00
Collector at police court .....	41,113.25
Assessor District of Columbia .....	25.00
Delivered to coroner .....	200.00
Total .....	

## ESTIMATED LOSSES—RECOVERED.

Property stolen .....	\$58,816.00
Reported lost or mislaid .....	4,736.00
Recovered .....	17,571.53

## MISCELLANEOUS REPORT.

Accidents .....	495	Dangerous or broken pavements .....	742
Attempts at suicide .....	22	Dangerous holes in roadway .....	435
Animals taken astray .....	495	Dangerous buildings .....	19
Animals to property clerk .....	59	Dangerous bridges .....	21
Animals to poundmaster .....	30	Dangerous telegraph wires .....	3
Abandoned infants found .....	22	Dangerous telegraph poles .....	2
Assistance rendered .....	43	Doors and windows found open .....	155
Dead infants found .....	97	Damaged trees and boxes .....	291
Dead bodies found .....	16	Deaths—coroner notified—no in-	
Drowned bodies found .....	25	quest .....	165
Dead animals .....	5,439	Fires, times attended .....	293



## MISCELLANEOUS REPORT—continued.

Fire plugs damaged .....	93	Permits examined, building .....	1, 933
Filthy gutters, alleys .....	176	Permits examined, miscellaneous .....	4, 683
Fountains damaged .....	33	Sewers damaged .....	165
Found sick on street .....	109	Sewers, filthy .....	152
Hydrants damaged .....	346	Snicides .....	25
Inquests attended .....	39	Sudden deaths .....	2
Lamps damaged .....	686	Telephone messages sent and re-	
Lamps not lighted .....	4, 370	ceived .....	38, 076
Lodgers accommodated .....	7, 728	Water mains damaged .....	159
Lost children restored to parents .....	18	Water pipes damaged .....	125
Pumps damaged .....	175		

## REPORT OF THE POLICE PATROL AND SIGNAL SERVICE.

Drivers .....	10
Wagons .....	9
Horses .....	13
Reports from boxes by officers .....	562, 730
Messages sent and received .....	3, 800
Calls for wagons by—	
Officers .....	6, 664
Citizens .....	189
Messengers or telephone .....	1, 206
Persons taken to—	
Headquarters .....	108
Police court .....	491
Jail .....	6
Workhouse .....	12
Hospitals .....	586
Home .....	114
Depots .....	35
Photograph gallery .....	26
Several asylums .....	38
Several homes .....	22
Dead bodies removed .....	129
Children restored to homes .....	80
Accidents attended .....	167
Injured removed to homes .....	133
Sick removed to homes .....	190
Times reserves to fires .....	184
Miscellaneous runs .....	1, 504
Total number of runs made .....	11, 578

## REPORT OF THE SANITARY SERVICE.

Drivers .....	3
Ambulances .....	3
Horses .....	4

## DISPOSITION OF SICK AND DESTITUTE PERSONS.

Sent to—	
Freedmen's Hospital .....	745
Washington Asylum Hospital .....	347
Providence Hospital .....	649
Garfield Hospital .....	76
Columbia Hospital .....	43
Homeopathic Hospital .....	54
Children's Hospital .....	47
Government Hospital for the Insane .....	159
Almshouse .....	160
St. Ann's Infant Asylum .....	8
Washington City Orphan Asylum .....	9
House of Good Shepherd .....	4
Woman's Christian Association .....	1
Little Sisters of the Poor .....	2
Soldiers' Home .....	2
Colored Orphans' Home .....	15
Emergency Hospital .....	43

## DISPOSITION OF SICK AND DESTITUTE PERSONS—continued.

Sent to—		
Industrial Home School .....	2	
German Orphan Asylum .....	11	
Foundling Asylum .....	2	
Hope and Help Mission .....	3	
Newsboys' Home .....	3	
Young Women's Christian Home .....	2	
Home for Friendless Colored Girls .....	1	
Removed to—		
Depots from hospitals or homes .....	27	
Their homes .....	150	
Insane to station-houses .....	5	
Intoxicated to station-houses .....	4	
City Hall .....	1	
United States marshal's office .....	1	
Witnesses conveyed to court or stations .....	1	
Miscellaneous runs where service—		
Was rendered .....	1,582	
Was not rendered .....	159	

## Ages of sick and destitute.

Color and sex.	Under 10 years.	Between 10 and 21 years.	Between 21 and 35 years.	Between 35 and 40 years.	Between 40 and 50 years.	Between 50 and 60 years.	Between 60 and 70 years.	Between 70 and 80 years.	Over 80 years.	Total.
White:										
Males .....	17	65	292	102	232	217	123	56	8	1,112
Females .....	23	58	117	38	68	58	40	29	9	440
Colored:										
Males .....	31	107	159	44	77	56	54	33	12	573
Females .....	19	131	152	45	39	24	26	10	6	452
Total .....	90	361	720	229	416	355	243	128	35	2,577

## NATIVITY.

Austria .....	1	Scotland .....	6
Arabia .....	1	Sweden .....	2
Canada .....	20	Switzerland .....	3
Denmark .....	4	Spain .....	1
England .....	39	United States:	
France .....	14	White .....	1,095
Germany .....	97	Colored .....	1,025
Ireland .....	234	Wales .....	3
Italy .....	17	West Indies .....	1
Poland .....	3		
Russia .....	11	Total .....	2,577

## OCCUPATION OF THE SICK AND DESTITUTE.

Artist .....	1	Cabinetmakers .....	2
Agents .....	14	Clerks .....	146
Actor .....	1	Conductors .....	5
Apprentices .....	3	Coach-makers .....	2
Bakers .....	4	Cooks .....	6
Brewer .....	1	Cigarmakers .....	2
Barbers .....	14	Confectioner .....	1
Blacksmiths .....	18	Dressmakers .....	5
Bricklayers .....	21	Drivers .....	36
Butchers .....	11	Druggists .....	4
Brakemen .....	10	Decorator .....	1
Boiler-makers .....	4	Dyer .....	1
Bartenders .....	4	Engraver .....	1
Carpenters .....	53	Engineers .....	11

## OCCUPATION OF THE SICK AND DESTITUTE—continued.

Editor .....	1	Printers .....	25
Farmers .....	19	Pavers .....	5
Firemen .....	2	Peddlers .....	15
Florists .....	2	Paper-hangers .....	3
Gardeners .....	7	Prostitutes .....	4
Housekeepers .....	160	Soldiers .....	18
Hostlers .....	7	Shoemakers .....	14
Hucksters .....	4	Slaters .....	2
Hatter .....	1	Sailors .....	41
Jewelers .....	4	Stonemason .....	1
Lawyers .....	4	Seamstresses .....	14
Laborers .....	769	Stonecutters .....	16
Machinists .....	11	Schoolboys .....	25
Merchants .....	8	Schoolgirls .....	14
Messengers .....	4	Servants .....	493
Molders .....	3	Stewards .....	3
Ministers .....	3	Tailors .....	11
Musician .....	1	Tinners .....	9
Millers .....	2	Teachers .....	8
None .....	331	Unknown .....	13
Nurses .....	7	Upholsterers .....	5
Porter .....	1	Waiters .....	16
Painters .....	35	Watchmen .....	9
Plasterers .....	17	Weavers .....	6
Plumbers .....	14	Wheelright .....	1
Physicians .....	3		
Policemen .....	4	Total .....	2,577

## RESIDENCE OF SICK AND DESTITUTE.

Alabama .....	3	Minnesota .....	2
Arkansas .....	2	New York .....	64
Canada .....	1	New Jersey .....	9
Connecticut .....	3	New Hampshire .....	4
California .....	2	North Carolina .....	11
Delaware .....	6	Nevada .....	1
District of Columbia .....	1,915	Nebraska .....	10
Florida .....	3	Ohio .....	21
Georgia .....	7	Pennsylvania .....	57
Illinois .....	12	Rhode Island .....	1
Iowa .....	2	Tennessee .....	2
Indiana .....	3	Texas .....	1
Kansas .....	3	Virginia .....	186
Kentucky .....	5	West Virginia .....	6
Louisiana .....	2	Wisconsin .....	4
Massachusetts .....	22	Nonresident .....	30
Maryland .....	139	Unknown .....	24
Missouri .....	7		
Maine .....	4	Total .....	2,577
Michigan .....	4		

## TRANSPORTATION FURNISHED TO—

Ashland, Va .....	1	Bethlehem, Pa .....	1
Afton, Va .....	2	Braddock, Pa .....	1
Alexandria, Va .....	1	Canandaigua, N. Y .....	2
Aberdeen, Md .....	1	Charleston, W. Va .....	2
Altoona, Pa .....	1	Culpeper, Va .....	1
Augusta, Me .....	1	Charlottesville, Va .....	2
Benwood, W. Va .....	1	Charleston, S. C .....	1
Bedford, Va .....	2	Connellsville, Pa .....	1
Barnesville, Md .....	1	Cumberland, Md .....	9
Boys, Md .....	1	Chicago, Ill .....	7
Berlin, Md .....	1	Cincinnati, Ohio .....	7
Brandywine, Md .....	2	Columbus, Ohio .....	7
Baltimore, Md .....	124	Elkton, Md .....	1
Bellaire, Ohio .....	2	Erie, Pa .....	1
Boston, Mass .....	2	Elmira, N. Y .....	4



# 102 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## TRANSPORTATION FURNISHED TO—continued.

Frederick Hall, Va .....	1	New York, N. Y .....	91
Falls Church, Va .....	1	Orange, Va .....	3
Fortress Monroe, Va .....	26	Oakland, Md .....	2
Fredericksburg, Va .....	3	Pittsburg, Pa .....	45
Fairmount, W. Va .....	1	Philadelphia, Pa .....	113
Frenchs, W. Va .....	4	Parkersburg, W. Va .....	3
Frederick, Md .....	6	Petersburg, Va .....	2
Gainsville, Va .....	1	Purcellville, Va .....	1
Greenville, S. C .....	1	Perth Amboy, N. J .....	1
Grafton, W. Va .....	3	Quantico, Va .....	1
Harrisburg, Pa .....	23	Richmond, Va .....	30
Hagerstown, Md .....	4	Staunton, Va .....	7
Harpers Ferry, W. Va .....	2	Stony Creek, Va .....	1
Lock Haven, Pa .....	1	Strasburg, W. Va .....	3
Lancaster, Pa .....	1	Sharpsburg, N. C .....	1
Leesburg, Va .....	1	Sunbury, Pa .....	1
Linden, Va .....	1	Scott Haven, Pa .....	1
Lexington, Va .....	3	Spartansburg, S. C .....	1
Lynchburg, Va .....	3	Sandusky, Ohio .....	1
Leonardtown, Md .....	1	St. Louis, Mo .....	4
Martinsburg, W. Va .....	2	Toledo, Ohio .....	1
Mitchells Station, Va .....	1	Tye River, Va .....	1
Milford, Va .....	1	Trenton, N. J .....	1
Manassas, Va .....	1	Woods, Va .....	2
Markham, Va .....	1	Warrenton, Va .....	1
Muirkirk, Md .....	1	Winchester, Va .....	1
Milton, Pa .....	3	Winston, N. C .....	1
Mount Holly, N. J .....	1	Weldon, N. C .....	3
Nomini, Va .....	1	Wilkes-Barre, Pa .....	1
Nokesville, Va .....	2	Williamsport, Pa .....	4
North Garden, Va .....	1	Wilmington, Del .....	5
Norfolk, Va .....	31	Wheeling, W. Va .....	2
Newark, Ohio .....	1	York, Pa .....	2
New Brunswick, N. J .....	1		
Newark, N. J .....	2		
Nanticoke, Pa .....	1		
		Total .....	665

## INDIGENTS, WHERE SENT AND WHY.

Residents sent to friends .....	48
Residents sent to places of employment .....	23
Ex-soldiers to Hampton Home .....	23
Ex-soldiers to friends seeking admission to homes .....	26
Looking for pensions, to friends .....	126
Looking for Government work, to friends .....	44
Cranks, to friends .....	10
Convalescents, to friends .....	57
Seeking private work, to friends .....	85
Assisted on their way home .....	152
Sent home by District of Columbia Commissioners .....	3
Sent home discharged by Government .....	3
Sent to friends, suspicious characters .....	18
Sent home, looking for friends .....	47
Total .....	665

# 04 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Census by squares.

WASHINGTON, D. C.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
vacant)	97	73	170	70.	184	242	376
Washington Gaslight Co.)				71.	59	9	68
1.	53	1	54	72.	117	229	346
W. 4.	8	21	29	73.	221	200	421
4.	145	45	190	74.	145	90	235
5.	257	191	448	75.	297	45	342
6.	74	19	93	76.	84	332	416
7 (Washington Gaslight Co.)				77.	301	50	351
8 (Washington Gaslight Co.)				78.	109	43	152
9 (Washington Gaslight Co.)				79.	182	99	281
10.	7		7	80.	147	34	181
11.	46	8	49	81.	67	216	283
12.	12	11	23	82.	4	94	98
S. 12 (Asphalt works)				83.	9	186	195
13.	12	92	104	84.	21	63	84
W 14.	31	54	85	85.	70	67	137
14.	20	57	77	86.	106	68	234
15.	197	12	209	E. 87.		75	75
16.	200	243	452	87.	14	79	93
17.	100	85	191	E. 88 (vacant)			
S. 17.		11	11	88.	36	83	119
18 (Washington Gaslight Co.)				89 (vacant)			
19.	25	112	137	90.	82	72	154
20.	72	30	102	91.	46	7	53
21.	24	96	120	92.	73	16	89
22.	8		8	93.	229	72	301
W. 23 (vacant)				94.	90	37	127
23.	62		62	95.	43	10	53
24.	121	251	372	96.	113	30	143
25.	63	40	103	97.	81	41	122
26.	38	2	40	98.	38	8	46
27.	117	5	122	W. 99.	10		10
28.	225	490	715	99.	179	222	401
29.	194		194	100.	124	519	643
30.	88	65	153	101.	260	45	305
	114	46	160	102.	253	47	300
	87	90	186	103.	140	16	156
	16	128	144	104.	114	498	612
(Naval Observatory)				S. 104.	28	198	206
35 (vacant)				105.	32	61	293
36.	108	102	210	106.	117	69	186
37.	215	218	433	107.	88	261	349
38.	87	67	154	108 (not shown on plat)			
39.	119	1	120	109.		1	1
40.	235	5	240	110.	98	145	243
41.	181	46	227	111.	152	33	185
42.	243	114	357	112.	17	0	23
43.	104	43	147	113.	69	33	102
44.	148	45	193	114.	68	17	85
45 (Naval Observatory)				115.	246	58	304
46 (Naval Observatory)				116.	143	153	296
47 (vacant)				117.	68	552	620
48.	12	2	14	118.	162	33	195
49.	40	20	60	119.	175	8	183
50.	58	1	59	120.	234	42	276
51.	144	239	383	121.	87	12	99
52.	60	5	65	122.	130	165	295
53.	97	7	104	123.	27	29	56
	188	66	254	124.	0	78	84
5.	197	46	243	125 (vacant)			
56.	179	92	271	126.	237	124	361
57.	193	32	225	127.	218	115	333
58.	32	1	33	N. 128 (vacant)			
59.	67	200	267	128 (vacant)			
60.	5	81	86	129 (not shown on plat)			
1.	4	108	112	130 (not shown on plat)			
2.	36	20	56	131.	34	138	172
3 (vacant)				132.	40	223	263
4 (not shown on plat)				133.	73	192	265
	16	108	124	134.	185	39	224
	81	27	108	135 (vacant)			
	57	86	143	136.	31	11	42
	49	76	125	N. 137 (vacant)			
	36	73	109	137.	106	28	134
				138.	78	20	104
				139.	249	77	326
				140.	186	508	674
				141.	100	44	240
				142.			
					129	116	405
							245

## TRANSPORTATION FURNISHED TO—continued.

Frederick Hall, Va .....	1	New York, N. Y .....	91
Falls Church, Va .....	1	Orange, Va .....	3
Fortress Monroe, Va .....	26	Oakland, Md .....	2
Fredericksburg, Va .....	3	Pittsburg, Pa .....	45
Fairmount, W. Va .....	1	Philadelphia, Pa .....	113
Frenchs, W. Va .....	4	Parkersburg, W. Va .....	3
Frederick, Md .....	6	Petersburg, Va .....	2
Gainsville, Va .....	1	Purcellville, Va .....	1
Greenville, S. C .....	1	Perth Amboy, N. J .....	1
Grafton, W. Va .....	3	Quantico, Va .....	1
Harrisburg, Pa .....	23	Richmond, Va .....	30
Hagerstown, Md .....	4	Staunton, Va .....	7
Harpers Ferry, W. Va .....	2	Stony Creek, Va .....	1
Lock Haven, Pa .....	1	Strasburg, W. Va .....	3
Lancaster, Pa .....	1	Sharpsburg, N. C .....	1
Leesburg, Va .....	1	Sunbury, Pa .....	1
Linden, Va .....	1	Scott Haven, Pa .....	1
Lexington, Va .....	3	Spartansburg, S. C .....	1
Lynchburg, Va .....	3	Sandusky, Ohio .....	1
Leonardtown, Md .....	1	St. Louis, Mo .....	4
Martinsburg, W. Va .....	2	Toledo, Ohio .....	1
Mitchells Station, Va .....	1	Tye River, Va .....	1
Milford, Va .....	1	Trenton, N. J .....	1
Manassas, Va .....	1	Woods, Va .....	2
Markham, Va .....	1	Warrenton, Va .....	1
Muirkirk, Md .....	1	Winchester, Va .....	1
Milton, Pa .....	3	Winston, N. C .....	1
Mount Holly, N. J .....	1	Weldon, N. C .....	3
Nomini, Va .....	1	Wilkes-Barre, Pa .....	1
Nokesville, Va .....	2	Williamsport, Pa .....	4
North Garden, Va .....	1	Wilmington, Del .....	5
Norfolk, Va .....	31	Wheeling, W. Va .....	2
Newark, Ohio .....	1	York, Pa .....	2
New Brunswick, N. J .....	1		
Newark, N. J .....	2		
Nanticoke, Pa .....	1		
		Total .....	665

## INDIGENTS, WHERE SENT AND WHY.

Residents sent to friends .....	48
Residents sent to places of employment .....	23
Ex-soldiers to Hampton Home .....	23
Ex-soldiers to friends seeking admission to homes .....	26
Looking for pensions, to friends .....	126
Looking for Government work, to friends .....	44
Cranks, to friends .....	10
Convalescents, to friends .....	57
Seeking private work, to friends .....	85
Assisted on their way home .....	152
Sent home by District of Columbia Commissioners .....	3
Sent home discharged by Government .....	3
Sent to friends, suspicious characters .....	18
Sent home, looking for friends .....	47
Total .....	665



## REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 10

*Census of the District of Columbia, enumerated by the Metropolitan Police Department  
June, 1892.*

Precinct No.—	Births since June 30, 1891.			White.						
	White.	Colored.	Total.	Under 6 years.	Under 18 years.	18 years and over.	Total.	Male.	Female.	Total.
1.....	101	26	127	466	1,559	8,675	10,700	5,380	5,320	10,700
2.....	290	331	621	1,718	4,291	16,632	22,641	10,256	12,385	22,641
3.....	255	286	541	1,422	3,405	13,190	18,017	7,866	10,151	18,017
4.....	482	337	819	2,200	4,198	12,757	19,155	9,730	9,425	19,155
5.....	622	250	872	3,142	6,292	17,146	26,580	13,561	13,019	26,580
6.....	296	120	416	1,354	3,319	14,343	19,016	9,819	9,197	19,016
7.....	304	106	410	1,495	3,771	8,972	14,238	7,066	7,172	14,238
8.....	531	391	922	2,321	5,139	14,258	21,718	10,935	10,783	21,718
9.....	485	106	591	2,157	4,298	11,724	18,179	8,914	9,265	18,179
Total.....	3,366	1,953	5,319	16,275	36,272	117,697	170,244	83,527	86,717	170,244

Precinct No.—	Colored.						
	Under 6 years.	Under 18 years.	18 years and over.	Total.	Male.	Female.	Total.
1.....	80	232	1,633	1,945	742	1,203	1,945
2.....	1,401	2,946	9,734	14,081	5,929	8,152	14,081
3.....	1,269	2,983	10,125	14,377	5,981	8,396	14,377
4.....	1,583	3,098	9,672	14,353	6,742	7,611	14,353
5.....	1,343	2,823	6,509	10,675	5,055	5,620	10,675
6.....	434	937	3,463	4,834	2,208	2,626	4,834
7.....	529	1,086	3,056	4,671	2,096	2,575	4,671
8.....	1,452	3,534	8,713	13,699	6,093	7,606	13,699
9.....	535	1,087	2,611	4,233	1,940	2,293	4,233
Total.....	8,626	18,726	55,516	82,868	36,786	46,082	82,868

Precinct No.—	Children between six and eighteen years, inclusive, not attending school.								Total.
	White.				Colored.				
	Male.	Female.	Total.	Earning wages.	Male.	Female.	Total.	Earning wages.	
1.....	135	143	278	131	46	55	101	60	502
2.....	200	249	539	260	293	291	584	292	12,734
3.....	266	202	468	203	524	487	1,011	587	37,345
4.....	751	512	1,263	630	676	613	1,289	563	32,935
5.....	562	435	997	507	318	290	608	353	34,327
6.....	275	191	466	236	140	141	281	102	88,127
7.....	364	233	597	186	208	178	386	155	24,266
8.....	486	372	858	346	581	487	1,068	524	19,319
9.....	403	318	721	449	206	151	357	225	36,339
Total.....	3,532	2,655	6,187	2,948	2,992	2,693	5,685	2,870	*258,431

\* The total population is obtained by adding the total white and colored births.

## 04 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Census by squares.

## WASHINGTON, D. C.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
vacant).....	97	73	170	70.....	134	242	376
Washington Gaslight				71.....	59	9	68
Co.).....				72.....	117	229	346
4.....	53	1	54	73.....	221	200	421
W. 4.....	8	21	29	74.....	145	90	235
4.....	145	45	190	75.....	297	45	342
5.....	257	191	448	76.....	84	332	416
6.....	74	19	93	77.....	301	50	351
7 (Washington Gaslight				78.....	109	43	152
Co.).....				79.....	182	99	281
8 (Washington Gaslight				80.....	147	34	181
Co.).....				81.....	67	216	283
9 (Washington Gaslight				82.....	4	94	98
Co.).....				83.....	9	186	195
10.....	7		7	84.....	21	63	84
11.....	46	3	49	85.....	70	67	137
12.....	12	11	23	86.....	166	68	234
S. 12 (Asphalt works).....				E. 87.....		75	75
13.....	12	92	104	87.....	14	79	93
W 14.....	31	54	85	E. 88 (vacant).....			
14.....	29	57	86	88.....	36	83	119
15.....	197	12	209	89 (vacant).....			
16.....	209	243	452	90.....	82	72	154
17.....	106	85	191	91.....	46	7	53
S. 17.....		11	11	92.....	73	16	89
18 (Washington Gaslight				93.....	229	72	301
Co.).....				94.....	90	37	127
19.....	25	112	137	95.....	43	10	53
20.....	72	30	102	96.....	113	30	143
21.....	24	96	120	97.....	81	41	122
22.....	8		8	98.....	38	8	46
W. 23 (vacant).....				W. 99.....	10		10
23.....	62		62	99.....	179	222	401
24.....	121	251	372	100.....	124	519	643
25.....	63	40	103	101.....	260	45	305
26.....	38	2	40	102.....	253	47	300
27.....	117	5	122	103.....	140	16	156
28.....	225	490	715	104.....	114	498	612
29.....	194		194	S. 104.....	28	198	206
30.....	88	65	153	105.....	32	61	293
	114	46	160	106.....	117	69	186
	87	99	186	107.....	88	261	349
	16	128	144	108 (not shown on plat).....			
31 (Naval Observatory).....				109.....		1	1
35 (vacant).....				110.....	98	145	243
36.....	108	102	210	111.....	152	33	185
37.....	215	218	433	112.....	17	6	23
38.....	87	67	154	113.....	69	33	102
39.....	119	1	120	114.....	68	17	85
40.....	235	5	240	115.....	246	58	304
41.....	181	46	227	116.....	143	153	296
42.....	243	114	357	117.....	68	552	620
43.....	104	43	147	118.....	162	33	195
44.....	148	45	193	119.....	175	8	183
45 (Naval Observatory).....				120.....	234	42	276
46 (Naval Observatory).....				121.....	87	12	99
47 (vacant).....				122.....	130	165	295
48.....	12	2	14	123.....	27	29	56
49.....	40	20	60	124.....	6	78	84
50.....	58	1	59	125 (vacant).....			
51.....	144	239	383	126.....	237	124	361
52.....	60	5	65	127.....	218	115	333
53.....	97	7	104	N. 128 (vacant).....			
54.....	188	66	254	128 (vacant).....			
55.....	197	46	243	129 (not shown on plat).....			
56.....	179	92	271	130 (not shown on plat).....			
57.....	193	32	225	131.....	34	138	172
58.....	32	1	33	132.....	40	223	263
59.....	67	200	267	133.....	73	192	265
60.....	5	81	86	134.....	185	39	224
61.....	4	108	112	135 (vacant).....			
62.....	36	20	56	136.....	31	11	42
63 (vacant).....				N. 137 (vacant).....			
64 (not shown on plat).....				137.....	106	28	134
65.....	16	108	124	138.....	78	26	104
66.....	81	27	108	139.....	249	77	326
67.....	57	86	143	140.....	166	508	674
	49	76	125	141.....	196	44	240
	36	73	109	142.....			

## Census by squares—Continued.

## WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
143.....	34	15	49	207.....	279	79	358
144.....	22	152	174	208.....	505	43	548
145 (vacant).....				209.....	233	508	741
146 (vacant).....				210.....	169	54	223
147.....		24	24	211.....	180	233	413
148 (not shown on plat).....				212.....	222	60	282
149 (houses but no residents).....				213.....	23	15	38
150.....	71	275	346	214.....	168	213	381
151.....	59		59	215.....	133	18	151
152.....	73	261	334	216.....	103	34	137
153.....	7	1	8	217.....	136	28	164
154.....		153	153	218.....	149	82	231
155.....	357	103	460	219.....	188	19	207
156.....	135	20	161	220.....	113	30	152
157.....	198	137	335	221.....	89	25	114
158.....	132	75	207	222.....	119	27	146
159.....	256	98	354	223.....	63	10	73
160.....	42	18	60	224.....	99	13	112
161.....	126	129	255	225.....	85		85
162.....	223	65	288	226.....	120	2	122
163.....	55	264	319	227.....	111	6	117
164.....	170	40	210	228.....	176	51	227
165.....	90	30	120	229.....	31	15	46
166.....	272	38	310	230.....	3		3
167.....	93	31	124	231.....	155		155
168.....	187	10	197	232.....	5		5
169.....	83	11	94	233.....		6	6
170.....	143	27	170	234.....	169	156	325
171.....	13	115	128	235.....	101	283	384
172.....	6	106	112	236.....	275	30	305
173.....		4	4	237.....	267	24	291
S. 173.....	3		3	238.....	356	168	524
Government reservation.....		18	18	239.....	528	30	558
Executive Mansion.....	7	2	9	240.....	551	50	601
174.....	37	41	78	241.....	304	87	391
175 pump house, water department.....				W. 242 (included in square 242).....			
176.....	73	59	132	242.....	330	47	377
N. 177.....	65	16	81	243.....	146	31	177
177.....	103	34	137	244.....	3		3
178.....	80	20	100	245.....	169	92	261
179.....	135	202	337	246.....	38	8	46
180.....	182	175	357	247.....	343	169	512
181.....	85	63	148	248.....	216	40	256
S. 181.....	133	82	215	249 (Franklin Square).....			
N. 182 (included in square 182).....				250.....	446	56	502
182.....	109	141	250	251.....	25	0	25
183.....	82	97	179	252.....	311	186	497
184.....	277	284	561	253.....	176	27	203
185.....	92	26	118	254.....	196	10	206
186.....	46	6	52	255 (Washington and Georgetown Rwy. Co. power house).....			
187 (Lafayette square).....				256.....	70	17	87
188 (vacant).....				257.....	78	78	156
S. 188 (vacant).....				258.....	87	97	184
N. 189 (vacant).....				259.....	11		11
189 (vacant).....				260 (lumber yards).....			
190.....	341	16	357	261 (not shown on plat).....			
191.....	245	126	371	262 (not shown on plat).....			
192.....	151	22	173	263.....	332	27	359
193.....	301	59	360	264.....	358	2	360
194.....	189	168	357	265.....	229		229
195.....	174	50	224	266.....	130		130
S. 195.....	126	83	209	267 (Baltimore and Potomac R. R. Co. freight yard).....			
W. 196 (included in square 196).....				268.....	2	1	3
196.....	226	298	524	269 (Richmond and Danville R. R. Co. car sheds).....			
197.....	110	324	434	270 (Richmond and Danville R. R. Co. car sheds).....			
198.....	121	257	378	271.....	510	85	595
199.....	184	46	230	272.....	53	36	89
200.....	63	20	83	273.....	111	44	155
201 (Lafayette Square).....				274.....	184	221	405
202.....	136	73	209	275.....	129	116	245
203.....	52	12	64				
204.....	284	14	298				
205.....	116	97	213				
206.....	365	296	661				



## 106 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Census by squares—Continued.

## WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
.....	155	57	212	345.....	385	50	435
.....	159	161	320	346.....	163	1	164
277 (included in square 277).....				347.....	209	12	221
278 (included in square 278).....				348.....	178	12	190
.....				349.....	67	3	70
.....	160	63	223	350.....	7	6	13
.....	173	102	275	W. 351.....	37	4	41
.....	290	67	357	351.....	201	2	203
.....	195	81	276	352.....	130	2	132
7.....	161	100	261	353.....	296	4	304
8.....	186	35	221	354.....	166	3	169
.....	191	27	218	355.....	45		45
85.....	245	50	295	356 (Great Falls Ice Co. stables).....			
86.....	206	58	264	357.....	167	92	259
87.....	168	59	227	358.....	118	233	351
88.....	367	18	385	359.....	8	195	203
89.....	186	18	204	360.....	170	65	235
90.....	210	26	236	361.....	270	133	403
91.....	123	8	131	362.....	341	27	368
92.....	78	5	83	363.....	428	64	492
93.....	153	88	241	364.....	212	263	475
94.....	10	1	11	365.....	540	43	583
95.....	2	2	4	366.....	377	45	422
96.....	366	72	438	367.....	305	175	480
97.....	271	74	345	368.....	287	467	754
98 (Baltimore and Potomac R. R. Co. freight yards).....				369.....	381	223	604
99.....	93	4	97	370.....	229	43	272
300 (Richmond and Danville R. R. Co. car sheds).....				371.....	212	19	231
301 (not shown on plat).....				372.....	262	41	303
302.....	49	122	171	373.....	404	28	432
303.....	93	139	232	374.....	414	44	458
304.....	27	2	29	375.....	555	34	589
305.....	22	218	240	376.....	75	6	81
306.....	154	74	228	377.....	262	37	299
307 and 308.....	91	134	225	378.....	353	78	431
309.....	7	281	288	379.....	37	3	40
.....	58	99	157	380.....	62	9	71
.....	26	3	29	381.....	14	4	18
.....	146	9	155	382.....	45	3	48
13.....	195	87	282	383.....	265	5	270
14.....	133	5	138	384.....	192	2	194
15.....	120	17	137	385.....	140	1	141
16.....	189	23	212	386 (Baltimore and Potomac R. R. Co. freight yard).....			
17.....	101	179	280	387.....	393	344	737
18.....	279	39	318	388.....	148	310	458
19.....	365	29	394	389.....	168	138	306
20.....	67	10	77	390.....	119	1	120
21.....	108	15	123	391 (lumber yard).....			
22.....	45	1	46	392 (not shown on plat).....			
23 (city post-office).....				393.....	247	3	250
24.....	34	36	70	394.....	444	11	455
25.....	163	13	176	395.....	43	1	44
.....	98	1	99	W 396 (lumber yard).....			
.....	199	7	206	396.....	82	35	117
320.....	55	1	56	397.....	296	5	301
330 (vacant).....	8	6	14	398.....	147	12	159
331.....	4	217	221	399.....	310	5	315
332.....	34	162	196	400.....	283	63	346
333.....	37	229	276	401.....	249	59	308
N. 334 (included in square 334).....				402.....	219	15	234
334.....	103	145	248	403.....	249	8	257
335.....	125	199	324	404.....	191	10	201
336.....	21	380	401	405.....	194	7	201
N 337 (included in square 337).....				406.....	80	12	92
337.....	72	181	253	407.....	115	20	135
338.....	141	83	224	408.....	24	2	26
339.....	202	8	210	409.....	139	8	147
340.....	182	131	313	410.....	70	1	71
341.....	120	50	270	411.....	148	222	370
342.....	191	72	263	412.....	98	29	127
343.....	104	67	171	413.....	140	15	155
344.....	206	52	259	414.....	85	80	165
				415.....	5	2	7
				S. 415 (wood and coal yard).....			
				416.....			
				417.....			

Census by squares—Continued.

WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
418 (not shown on plat)				485	168	1	169
419	189	129	318	486	217	10	227
W. 420 (included in square 420)				487	176		176
420	237		237	488	175		175
421	204	2	206	489	110	7	117
422	89	12	101	490	174	56	230
423	153	3	156	491	263	10	273
424	367	3	370	A	423	67	490
425	254	25	279	B	342	113	455
426	195	3	198	C	94	106	260
427	178	26	204	D	322	42	364
428	131	7	138	Res. 10	625	222	847
429	213	21	234	Res. 11	210	96	306
430 (Post-Office Department)				Res. 12	256	33	289
431	86	5	91	492	311	49	360
432	45	1	46	493	100	46	146
433	127	5	132	494	250	200	450
434	79	3	82	495	240	32	272
435	253	47	300	496	430	6	436
436	133	3	136	497	359	43	402
437	207	6	213	498	389	143	532
438	152	1	153	499	265	83	348
439	190	2	192	500	285	125	410
S. 439 (Springman's blacksmith shop)				501	276	184	460
440	60		60	502	697	106	803
441	424	260	684	503	634		634
442	284	329	613	504	24		24
443 (not shown on plat)				505 (not shown on plat)			
444	432	7	439	506 (not shown on plat)			
445	349	198	547	N. 507	8		8
446	91	1	92	507	270	116	386
447	336	332	668	N. 508	45	21	66
448	362	286	648	508	186		186
449	304	379	683	E. 509 (included in square 509)			
450	214	30	244	509	447	239	686
451	175	31	206	E. 510 (included in square 510)			
452	288	35	323	510	279	361	640
453	242	110	352	511	323	207	530
454	292	33	325	512	333	666	999
455	201	17	218	513	410	588	998
456	152	36	188	514	436	77	513
457	334	28	362	N. 515	270	89	359
458	67	7	74	515	173	255	428
459	69		69	516	484	202	686
460	83		83	S. 516	232	122	354
461	148	2	150	517	373	32	405
462	358	20	378	518	630	546	1,176
463	185		185	519	16	1	17
S. 463	102	14	116	520	25	72	97
464	72		72	521	23	170	193
465	542	34	576	522	11	63	74
466	187	7	194	523	213	82	295
467	390	1	391	524	82		82
468	238	150	388	525	82	152	234
469	346	74	420	526	46	127	173
470	208	57	265	527	141	68	209
471	163	151	314	528	144	10	154
W. 471 (Fosburg & Murray's shop)				529	225	66	291
472	190		190	530	147	32	179
473	40		40	531	150	15	165
W. 474 (not shown on plat)				532	285	8	293
475	200	24	224	533	372	43	415
E. 475	47	63	110	534	232	1,127	1,359
S. 475	63	1	64	535	277	210	487
476	121	4	125	536	104	181	285
477	168	133	301	537	222	150	381
478	197	48	245	538	86	400	486
479	95	25	120	539	116	450	572
480	176	92	268	540	150	291	441
481	205	7	212	541	257	410	667
482	308	16	324	542 (vacant)			
483	3	1	4	543	133	228	361
W. 484	75	30	105	544	199	190	389
484	179	12	191	545	363	382	745
				546	473	12	485
				E. 546	10	11	21
				Washington Barracks	479	23	502

## Census by squares—Continued.

WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
547.....	6		6	614.....	20		20
E. 547.....	3		3	615.....	89	122	211
548 (not shown on plat).....				616.....	162	169	331
549 (not shown on plat).....				617.....	75	37	112
550.....	42		42	618.....	137	16	153
551.....	179	412	591	619.....	66	3	69
552.....	9	18	27	620.....	294	721	1,015
553.....	103	446	549	621.....	521	446	967
W. 553.....	61	75	136	622.....	261	6	267
W. 554 (included in square 554).....				623.....	962	269	1,231
554.....	126	190	316	W. 623.....	248	6	254
555.....	25	2	27	W. 624 (included in square 624).....			
556.....	35	139	174	624.....	509	358	867
557.....	245	737	982	625.....	143	129	272
558.....	91	201	292	626.....	393	40	433
559.....	230	240	470	627.....	13		13
560.....	108	18	126	628.....	348	381	729
561.....	212	5	217	629.....	258	48	306
562.....	155	103	258	630.....	138	2	140
S. 562.....	150	8	158	631.....	79	5	84
N. 563 (parking).....				632 (Baltimore and Ohio R. R. depot).....			
563.....	141	15	156	633.....	294	73	367
564.....	273	188	461	634.....	331	21	352
565.....	146	32	178	635.....	172	216	388
566.....	207	60	267	S. 635 (included in square 635).....			
567.....	271	82	353	636.....	2	33	35
568.....	334	47	381	637.....	8	27	35
569.....	268	338	606	638.....	37	517	554
570.....	356	22	378	639.....	24		24
571.....	277	120	397	640.....	26	320	346
572.....	336	28	364	E. 641.....	15	11	26
S. 572 (included in square 572).....				641.....	158	20	178
573.....	122	5	127	W. 642 (vacant).....			
574.....	169	9	178	E. 642 (vacant).....			
575.....	423	30	453	642.....	39	208	247
576.....	68	108	176	643.....	39	223	262
577.....	77	340	417	E. 643.....		42	42
578.....	31	60	91	S. 643.....		5	5
579.....	16	234	250	644.....		34	34
N. 580 (included in square 580).....				645.....	46	54	100
580.....	87	162	249	W. 645.....		137	137
581.....	108	358	466	646 (vacant).....			
582.....	126	301	427	647.....			
583.....	39	423	462	648.....	3		3
584.....	77	217	294	649 (vacant).....	4		4
585.....	30	348	378	W. 650.....			
586.....	64	319	383	650.....	5		5
587.....	28	290	318	651.....	51	438	489
588.....	19	220	239	652.....	17		17
589.....	17	140	157	653.....	42	185	227
590.....	6	176	182	654.....	103	25	128
E. 590 (Randall School).....				655 (vacant).....	31		31
591.....	10	137	147	656.....			
592.....	9	19	28	657 (vacant).....	73		73
593.....		141	141	658.....			
594.....	19	288	307	659 (not shown on plat).....	2	13	15
595.....		68	68	660.....			
596.....	44	171	215	661.....	4		4
597.....	154	53	207	662.....	10		10
W. 597.....	69	93	162	E. 662 (vacant).....	28	27	55
598.....	49	40	89	663.....			
599.....	14	49	63	664.....	3	3	6
600 (vacant).....				E. 664 (vacant).....	41	25	66
601.....	30	17	47	665.....			
602.....	12		12	666 (not shown on plat).....	6	1	7
603.....	11	32	43	667.....		22	22
604 (vacant).....				S. 667.....			
605 (vacant).....				668.....	13		13
606 (vacant).....				669.....	97		97
607.....				670 (vacant).....	149	47	196
608 (vacant).....	8		8	671 (vacant).....			
609.....	5		5	672.....			
610 (vacant).....				673 (vacant).....	118		118
611.....				674.....			
612 (not shown on plat).....	11	23	34	675.....	513	264	777
613 (not shown on plat).....				676.....	1,021	4	1,025
					404	24	428



## Census by squares—Continued.

## WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
677.....	659	240	905	738 (vacant).....			
678 (Baltimore and Ohio R. R. Co. freight yard).....				739.....	17	298	315
679.....	39	34	73	740.....	134	2	136
680.....	25		25	741.....	17	44	61
681 (Baltimore and Ohio R. R. Co. freight yard).....				742.....	148	110	258
682.....	149		149	W. 743 (included in square 743).....			
683.....	64		64	743.....	206	116	322
684.....	152	22	174	S. 744 (included in square 744).....			
685.....	229	21	250	744.....	156	17	173
686.....	193	86	279	745 (not shown on plat).....			
687 (not shown on plat).....				746 (not shown on plat).....			
688 (not shown on plat).....				W. 747 (vacant).....			
689.....	16	3	19	747.....	9		9
690.....	230	93	323	748.....	40	20	69
691.....	104	23	127	749.....	165	34	199
692.....	86	24	110	750.....	48		48
693.....	160	56	216	751.....	258	38	296
694.....	197	52	249	752.....	214	8	222
695 (Baltimore and Poto- mac R. R. Co. freight yard).....				753.....	236	97	333
NW. 695 (Baltimore and Potomac R. R. Co. freight yard).....				754.....	77		77
W. 695 (Baltimore and Potomac R. R. Co. freight yard).....				755.....	145	151	296
696.....	3	10	13	756.....	76	7	83
W. 697.....	7	18	25	757.....	200	103	303
697.....	150	28	178	758.....	96	5	101
698 (vacant).....				759.....	200	71	271
W. 699.....	46	14	60	760.....	186	14	200
699.....	7	119	126	761.....	191	11	202
700.....	45		45	762.....	174	57	231
701.....	169	35	204	763.....	148	22	170
702.....	118		118	764.....	43	1	44
703.....	107	79	186	765.....	5		5
704.....	24		24	766.....	246	39	285
705 (vacant).....				767.....	63		63
706.....	14	15	29	768.....	69	1	70
707 (not shown on plat).....				769.....	278	25	303
708.....	41		41	770.....	30	44	74
S. 708 (vacant).....				771.....	116		116
709.....	6	1	7	W. 772.....	4		4
E. 710 (vacant).....				772.....	29		29
710 (vacant).....				773 (vacant).....			
E. 711 (vacant).....				774.....	159	27	186
711.....		3	3	775.....	104	12	116
712.....	9	68	77	776.....	157	4	161
713 (vacant).....				777.....	139	10	149
714.....	23		23	778.....	40		40
715.....	132	66	198	779.....	292	1	293
716.....	129		129	780.....	206	1	207
717.....	142		142	781.....	100	5	105
718 (vacant).....				782.....	192	15	207
719.....	298	56	354	783.....	91	19	110
720.....	222	14	236	784.....	114	30	144
721.....	389	10	399	785.....	172	101	273
722.....	163	6	169	786.....	144	53	197
723.....	122	10	132	787.....	142	17	159
724.....	279	122	401	788.....	151	60	211
725.....	436	216	652	789.....	67		67
726.....	89	10	99	790.....	105	18	123
727.....	121	11	132	791.....	94	66	160
728.....	182	51	233	792.....	50	60	110
729 (Congressional Li- brary).....				793.....	159	105	264
730 (Congressional Li- brary).....				794 (vacant).....			
731 (Congressional Li- brary).....				795.....	62	137	199
732.....	535	40	575	796.....	91	18	109
733.....	203	128	331	797.....	81	186	267
734.....	164	165	329	798.....	99	37	136
735 (vacant).....				799.....	56		56
736.....	31		31	800.....	96	38	134
737.....	31	47	78	801.....	72		72
				802.....	135	4	139
				803 (not shown on plat).....			
				804 (vacant).....			
				805.....	245	1	246
				806.....	119		119
				807.....	48		48
				808.....	113	1	114
				809.....	170	1	171
				810.....	15		15

## Census by squares—Continued.

WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
811.....	6	1	7	888.....	40		40
812.....	148	64	212	889.....	147	3	150
813.....	77	20	97	890.....	127	3	130
814.....	100	3	103	891.....	201	1	202
815.....	181	11	192	892 (vacant).....			
816.....	124	58	182	893.....	82	59	141
817.....	133	2	135	S. 893.....	29		29
818.....	148	54	202	894.....	127	17	144
819.....	153	16	169	895.....	148	32	180
820.....	94	46	140	896.....	125	20	145
821.....	71	123	194	897.....	174	19	193
822.....	22	36	58	898.....	105	72	177
823.....	212	3	215	899.....	103	1	104
824.....	180	18	198	900.....	197		205
825.....	93	27	120	901 (Wallach School).....			
S. 825.....	66	22	88	902.....	136	2	138
826 (vacant).....				903.....	223		223
827 (not shown on plat).....				904.....	305	19	324
828.....	23	20	43	905.....	121	7	128
829.....	131	49	180	906.....	137	43	180
830.....	8		8	907.....	33	40	73
831.....	29		29	908 (vacant).....			
832.....	11		11	909 (vacant).....			
833.....	72		72	910.....	164	56	220
834.....	33		33	911.....	28	1	29
835.....	122	10	132	912.....	174	2	176
836.....	138	21	159	913.....	48		48
837.....	79		79	914.....	33		33
838.....	106	2	108	915.....	11		11
839 (vacant).....				S. 915.....	117		117
840.....	125	20	145	916.....	159	40	199
841.....	110	3	113	917.....	223	4	227
842.....	119	47	166	S. 917.....	11		11
843.....	183	20	203	918.....	59		59
844.....	126	15	141	919.....	137	3	140
845.....	98	45	143	920.....	145	4	149
846.....	183	36	219	921.....	33		33
847.....	142	10	152	922.....	61	1	62
848 (not shown on plat).....				923.....	119	2	121
849.....	147	58	205	924.....	137	3	140
850 (not shown on plat).....				925.....	109	1	110
851 (not shown on plat).....				926.....	347	6	353
852 (not shown on plat).....				927.....	108	6	114
853.....	31	87	118	928.....	155	3	158
854 (not shown on plat).....				929.....	74	9	83
W. 855.....	16	14	30	930.....	114	17	131
855.....	31		31	W. 931.....		7	7
856.....	334	20	354	931 (vacant).....			
857.....	72		72	932.....	48		48
858.....	226	37	263	933.....	130	137	267
859.....	325	6	331	934.....	154	1	155
860 (vacant).....				935.....	131	3	134
861.....	398	4	402	936.....	117	2	119
862 (vacant).....				937.....	45	1	46
863.....	5	31	36	938.....		47	47
864.....	188	12	200	939.....	70	36	106
865.....	126	56	182	940.....	52	2	54
866.....	224	7	231	941.....	78	18	96
867.....	291	63	354	942.....	133	2	135
868.....	306	54	360	943.....	63	39	102
869.....	288	13	301	944.....	231	21	252
870.....	322	242	564	945.....	171	51	222
871.....	125	0	125	946.....		0	0
872.....	138	3	141	947.....	87	2	89
873.....	211	57	268	948.....	25		25
874.....	243	3	246	949.....	243	15	258
875.....	3		3	950.....	299	66	365
876.....	293	41	334	S. 951 (included in square 951).....			
877.....	342	183	525	951.....	151	4	155
878.....	387	289	676	952.....	126		126
879.....	36	16	52	953.....	37	45	82
880.....	29		29	954 (vacant).....			
881.....	163	160	323	955 (vacant).....			
882.....	92	4	96	956.....			
883 (not shown on plat).....				957.....	4	1	5
884 (not shown on plat).....				958.....	0	59	59
885 (not shown on plat).....				959.....	44		44
886.....				960.....	67	68	135
887.....	9		9		88	20	108
	25	2	27				

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 111

## Census by squares—Continued.

### WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
961.....	13		13	1028.....	45	20	71
W. 962.....	10		10	1029 (vacant).....			
962 (vacant).....				1030.....	13	9	22
963.....	15	11	26	1031 (vacant).....			
964.....	141	4	145	1032 (vacant).....			
965.....	161	22	183	1033.....	58	297	355
966.....	38	8	46	N. W. 1033 (vacant).....			
967.....	104	1	105	1034.....	13	29	43
968.....	160	17	177	W. 1035 (vacant).....			
969.....	33		33	1035.....	7	29	36
970.....	130	23	153	1036 (vacant).....			
971.....	108	28	136	S. 1036 (vacant).....			
972.....	167	2	169	1037.....	11	32	43
973.....	256		256	1038.....	23	29	52
974.....	207	33	240	1039.....	16	47	63
975.....	189		189	1040.....		18	18
S. 975.....	74		74	1041.....	25	108	133
976.....	108		108	E. 1042 (vacant).....			
977.....	119	2	121	1042.....	129	65	194
978.....	30	2	32	1043.....	154		154
979.....	15	16	31	1044.....	8	1	9
W. 980.....	78		78	1045.....	31	8	39
980 (vacant).....				1046.....	109		109
981.....	130	2	132	1047.....	176		176
982.....	38	5	43	1048.....	74		74
983.....	169	94	263	S. 1048 (included in			
984.....	11		11	square 1048).....			
985.....	3	87	90	W. 1049 (vacant).....			
986.....	55	82	137	1049.....	23	1	24
987.....	299	22	321	1050.....	157	4	161
988.....	75	3	78	1051.....	78	5	83
989.....	108	2	110	1052.....	19		19
990.....	148	33	181	W. 1053 (vacant).....			
S. 990.....	54	42	96	1053 (vacant).....			
991.....	154	1	155	1054 (vacant).....			
992.....	153	2	155	1055.....		69	69
993 (not shown on plat).....				1056 (vacant).....			
994.....	149		149	1057 (vacant).....			
995.....	213	9	222	1058.....	74	107	181
996.....	179	4	183	1059.....	8	27	35
997.....	97	1	98	S. 1059 (vacant).....			
998 (not shown on plat).....				1060.....	6	176	182
999.....	16		16	1061.....		65	65
1000.....	193		193	1062.....		46	46
1001.....	91	4	95	S. 1062 (vacant).....			
1002.....	151	54	205	1063.....	25		25
1003.....	477	134	611	1064 (vacant).....			
1004.....	203		203	N. E. 1065 (vacant).....			
1005.....	123	11	134	1065.....	16		16
1006.....	88		88	1066.....	35		35
1007.....	77		77	1067 (vacant).....			
1008.....	16		16	W. 1068 (vacant).....			
1009 (vacant).....				1069.....		13	13
1010.....	10	144	154	1069.....		16	16
1011.....	60		60	1070.....	3	51	54
1012.....	25	1	26	1071.....	4	118	122
1013 (vacant).....				1072.....		37	37
1014 (vacant).....				S. 1072.....	17	56	73
1015.....	71	21	92	1073.....	37	28	65
E. 1015 (vacant).....				1074.....	67		67
S. 1015.....	10	26	36	1075 (vacant).....			
1016 (not shown on plat).....				1076.....	61		61
N. 1017 (vacant).....				1077 (vacant).....			
1017.....		24	24	1078.....	30		30
1018.....	87	144	231	1078 (vacant).....			
1019.....	200		200	SE. 1079 (vacant).....			
S. 1019.....	133		133	1080.....	20		20
1020.....	410	136	546	S. 1080 (included in			
1021.....	59	7	66	square 1080).....			
1022.....	18		18	1081 (not shown on plat).....			
1023.....	73	1	74	1082.....		35	35
1024 (vacant).....				1083.....		35	35
1025 (vacant).....				1084 (vacant).....			
E. 1025 (vacant).....				1085.....	36	39	75
Navy-yard.....	198	27	225	1086.....	0	45	45
W. 1026 (vacant).....				1087.....		9	9
1026.....	242		242	1088.....	3	42	45
1027.....	107	36	143	1089.....			
S. 1027 (vacant).....				1090.....	34	32	66



# 112 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Census by squares—Continued.

WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
1091.....	9		9	1121.....		11	11
S. 1091 (included in square 1091).....				1122 (vacant).....			
1892.....		9	9	1123 (not shown on plat).....			
W. 1092 (vacant).....				1124 (not shown on plat).....			
S. 1092 (vacant).....				1125 (vacant).....			
1093.....		42	42	1126 (vacant).....			
1094 (vacant).....				1127 (vacant).....			
1095.....	14	127	141	1128 (vacant).....			
1096.....		3	3	1129 (vacant).....			
1097 (vacant).....				1130 (not shown on plat).....			
1098.....		59	59	1131 (not shown on plat).....			
1099 (not shown on plat).....				1132 (vacant).....			
1100 (vacant).....				1133 (vacant).....			
1101 (not shown on plat).....				1134 (vacant).....			
1102 (vacant).....				1135 (vacant).....			
1103 (not shown on plat).....				1136 (vacant).....			
1104 (not shown on plat).....				1137 (vacant).....			
1105 (not shown on plat).....				1138 (vacant).....			
1106 (not shown on plat).....				1139 (vacant).....			
1107.....		49	49	1140 (vacant).....			
1108.....		25	25	S. 1140.....		13	13
1109 (vacant).....				1141 (vacant).....			
1110.....	7	40	47	1142 (vacant).....			
1111.....	5		5	1143 (vacant).....			
1112 (vacant).....				United States jail.....	42	200	242
NE. 1113 (vacant).....				Alms house.....	74	94	168
1113.....		5	5	Washington Asylum.....			
1114.....	12		12	Hospital.....	32	45	77
SE. 1114 (vacant).....				Workhouse.....	106	135	241
1115 (not shown on plat).....				Congressional Cemetery.....	8		8
1116 (not shown on plat).....				Female Workhouse.....	22	75	97
1117 (not shown on plat).....				Aged Colored Men's Home.....		46	46
1118.....	9	3	12	Rosedale.....	761	39	800
1119 (vacant).....							
1120 (vacant).....							
				Total.....	142, 254	69, 404	211, 658

## GEORGETOWN, D. C.

1 (mill, etc.).....				37.....	209	24	233
2.....		6	6	38.....	357	70	427
3 (ice houses, etc.).....				39.....	308	29	337
4.....	11		11	40.....	138	10	148
5 (warehouses, etc.).....				41.....	154		154
6 (warehouses, etc.).....				42.....	151	90	241
7 (warehouses, etc.).....				43.....	152		152
8 (warehouses, etc.).....				44.....	46	92	138
9 (warehouses, etc.).....				45.....	52	124	176
10.....	2		2	46 (public dump).....			
11 (vacant.).....				47.....		4	4
12.....	31		31	48.....	192	33	225
13.....	18	42	60	49.....	89		89
14.....	71	52	123	50.....	113	5	118
15.....	5	44	49	51.....	185	6	191
16.....	122	41	163	52.....	137	10	147
17.....	69	14	83	53.....	63	53	116
18.....	195	43	238	54.....	143	38	181
19.....	185	29	214	55 (Georgetown College grounds).....			
20.....	140	103	243	56.....	192	0	198
21.....	96		96	57.....	101	4	105
22.....	94	13	107	58.....	151	4	155
23.....	7		7	59.....	111	15	126
24.....	43	3	46	60.....	73	7	80
25.....	67	19	86	61.....	134	57	191
26.....	81	58	139	62.....	170	8	178
27.....	157	86	243	63.....	156	9	165
28.....	204	1	205	64.....	102	16	118
29.....	131	23	154	65.....	104	18	122
30.....	259	20	279	66.....	27	121	148
31.....	110	29	139	67.....		74	74
32.....	78	3	81	68.....	7	74	81
33.....	12	1	13	69.....	18	173	191
34.....	80	1	81	70.....	66	131	197
35.....	189	6	195	71.....	64	75	139
36.....	89	39	128				

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 113

## Census by squares—Continued.

### GEORGETOWN, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
72.....	84	5	89	99.....	159	21	180
73.....	126	5	131	100.....	94	11	105
74.....	238	37	275	101.....	160	58	218
75.....	127	14	141	102.....	112	7	119
76.....	219	35	254	103.....	89	85	174
77.....	209	21	230	104.....	43	12	55
78.....	180	33	219	105.....	240	2	242
79 (Georgetown College).				106 (St. Joseph's School).			
80.....	315	9	324	107.....	18	23	41
81 (Academy of Visitation. See square 105 for residents)				108.....	200	72	272
82 (Academy of Visitation. See square 105 for residents)				109.....	63	35	98
83.....	93	1	94	110.....	385	118	503
84.....	138	143	281	111.....	121	10	131
85.....	200	35	235	112.....	146	21	167
86.....	241	4	245	113.....	48	6	54
87.....	180	11	191	114.....	54	5	59
88.....	80	12	92	115.....	17	2	19
89.....	78	41	119	116 (not shown on plat)			
90.....	13	122	135	117 (not shown on plat)			
91.....	2	113	115	118 (not shown on plat)			
92.....	2	153	155	119 (not shown on plat)			
93.....	148	142	290	120.....	52	108	160
E. 93 (included in square 93)				121.....	173	11	184
E. 94 (Metropolitan Rwy. Co. stables)				122 (Academy of Visitation)			
94.....	93	217	310	123.....	10	2	12
95.....	5	60	65	124.....	27	2	29
96.....	60	9	69	125.....	15	1	16
97.....	83	8	91	126.....	86	26	112
98.....	88	8	96	127.....	103	77	180
				128.....	53	3	56
				129.....	222	12	234
				130.....	105	6	111
				Total.....	12,314	4,030	16,344

### VILLAGES AND COUNTY OF WASHINGTON, D. C.

VILLAGES.	White.	Colored.	Total.	ROADS.	White.	Colored.	Total.
Anacostia.....	2,116	106	2,222	Grant avenue to Irving street.....	198	189	387
Brookland.....	461		461	Seventh to Ninth streets, Grant avenue to Irving street.....	158	212	370
Burrville.....		172	172	Irving street to Whitney avenue.....	131	156	287
Bennings.....	523	392	915	Seventh to Ninth streets, Irving street to Whitney avenue.....	177	176	353
Brightwood.....	189	70	259	Florida avenue from Ninth to Fourteenth streets.....	144	171	315
Columbia Heights.....	490	138	628	Ninth to Fourteenth streets, Florida to Whitney avenues.....	185	48	233
Eckington.....	58	23	81	Southside Whitney avenue from Ninth to Fourteenth streets.....	172	7	179
Fort Totten.....	32	39	71	Whitney avenue to Spring street.....	183	27	210
Garfield.....		226	226	Seventh to Fourteenth streets, Whitney avenue to Spring street.....	260	85	345
Giesboro.....	272	72	344	Seventh to Fourteenth streets, Military road to Spring street.....	212	98	310
Hillsdale.....	141	1,917	2,058	Brightwood avenue to Piney Branch road.....	48	135	183
Howard Town.....	139	1,262	1,401	Brightwood avenue to Rock Creek, and Military road to District of Columbia line.....	85	43	128
Ivy City.....	76	121	197				
Lincolnton.....		98	98				
Lanier Heights.....	94	12	106				
Le Droit Park.....	1,137	49	1,186				
Mount Pleasant.....	856	99	955				
Winthrop Heights.....	236	126	362				
Meridian Hill.....	278	1,056	1,334				
Ruppliville.....	116	1	117				
South Brookland.....	41		41				
Tennallytown.....	520	211	731				
Twining City.....	123		123				
Takoma.....	152	20	172				
Terra Cotta.....	87	7	94				
Washington Heights.....	225	75	300				
Catholic University.....	87		87				
Freedmen's Hospital.....	10	108	118				
Howard University.....		48	48				
Insane Asylum.....	1,745	276	2,021				
Soldiers' Home.....	764	19	783				
Trinidad.....	466	5	471				

## 112 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Census by squares—Continued.

WASHINGTON, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
1091.....	9		9	1121.....		11	11
S. 1091 (included in square 1091).....				1122 (vacant).....			
1092.....		9	9	1123 (not shown on plat).....			
W. 1092 (vacant).....				1124 (not shown on plat).....			
S. 1092 (vacant).....				1125 (vacant).....			
1093.....		42	42	1126 (vacant).....			
1094 (vacant).....				1127 (vacant).....			
1095.....	14	127	141	1128 (vacant).....			
1096.....		3	3	1129 (vacant).....			
1097 (vacant).....				1130 (not shown on plat).....			
1098.....		59	59	1131 (not shown on plat).....			
1099 (not shown on plat).....				1132 (vacant).....			
1100 (vacant).....				1133 (vacant).....			
1101 (not shown on plat).....				1134 (vacant).....			
1102 (vacant).....				1135 (vacant).....			
1103 (not shown on plat).....				1136 (vacant).....			
1104 (not shown on plat).....				1137 (vacant).....			
1105 (not shown on plat).....				1138 (vacant).....			
1106 (not shown on plat).....				1139 (vacant).....			
1107.....		49	49	1140 (vacant).....			
1108.....		25	25	S. 1140.....		13	13
1109 (vacant).....				1141 (vacant).....			
1110.....	7	40	47	1142 (vacant).....			
1111.....	5		5	1143 (vacant).....			
1112 (vacant).....				United States jail.....	42	200	242
NE. 1113 (vacant).....				Almshouse.....	74	94	168
1113.....		5	5	Washington Asylum.....			
1114.....	12		12	Hospital.....	32	45	77
SE. 1114 (vacant).....				Workhouse.....	106	135	241
1115 (not shown on plat).....				Congressional Cemetery.....	8		8
1116 (not shown on plat).....				Female Workhouse.....	22	75	97
1117 (not shown on plat).....				Aged Colored Men's Home.....		46	46
1118.....	9	3	12	Rosedale.....	761	39	800
1119 (vacant).....				Total.....	142, 254	69, 404	211, 658
1120 (vacant).....							

## GEORGETOWN, D. C.

1 (mill, etc.).....				37.....	209	24	233
2.....		6	6	38.....	357	70	427
3 (ice houses, etc.).....				39.....	308	29	337
4.....	11		11	40.....	138	10	148
5 (warehouses, etc.).....				41.....	154		154
6 (warehouses, etc.).....				42.....	151	90	241
7 (warehouses, etc.).....				43.....	152		152
8 (warehouses, etc.).....				44.....	46	92	138
9 (warehouses, etc.).....				45.....	52	124	176
10.....	2		2	46 (public dump).....			
11 (vacant).....				47.....		4	4
12.....	31		31	48.....	192	33	225
13.....	18	42	60	49.....	89		89
14.....	71	52	123	50.....	113	5	118
15.....	5	44	49	51.....	185	6	191
16.....	122	41	163	52.....	137	10	147
17.....	69	14	83	53.....	63	53	116
18.....	195	43	238	54.....	143	38	181
19.....	185	29	214	55 (Georgetown College grounds).....			
20.....	140	103	243	56.....	192	6	198
21.....	96		96	57.....	101	4	105
22.....	94	13	107	58.....	151	4	155
23.....	7		7	59.....	111	15	126
24.....	43	3	46	60.....	73	7	80
25.....	67	19	86	61.....	134	57	191
26.....	81	58	139	62.....	170	8	178
27.....	157	86	243	63.....	156	9	165
28.....	204	1	205	64.....	102	16	118
29.....	131	23	154	65.....	104	18	122
30.....	259	20	279	66.....	27	121	148
31.....	110	29	139	67.....		74	74
32.....	78	3	81	68.....	7	74	81
33.....	12	1	13	69.....	18	173	191
34.....	80	1	81	70.....	66	131	197
35.....	189	6	195	71.....	64	75	139
36.....	89	39	128				



## Census by squares—Continued.

## GEORGETOWN, D. C.—Continued.

Square.	White.	Colored.	Total.	Square.	White.	Colored.	Total.
72.....	84	5	89	99.....	159	21	180
73.....	126	5	131	100.....	94	11	105
74.....	238	37	275	101.....	160	58	218
75.....	127	14	141	102.....	112	7	119
76.....	219	35	254	103.....	89	85	174
77.....	209	21	230	104.....	43	12	55
78.....	180	33	219	105.....	240	2	242
79 (Georgetown College).....				106 (St. Joseph's School).....			
80.....	315	9	324	107.....	18	23	41
81 (Academy of Visitation. See square 105 for residents).....				108.....	200	72	272
82 (Academy of Visitation. See square 105 for residents).....				109.....	63	35	98
83.....	93	1	94	110.....	385	118	503
84.....	138	143	281	111.....	121	10	131
85.....	200	35	235	112.....	146	21	167
86.....	241	4	245	113.....	48	6	54
87.....	180	11	191	114.....	54	5	59
88.....	80	12	92	115.....	17	2	19
89.....	78	41	119	116 (not shown on plat).....			
90.....	13	122	135	117 (not shown on plat).....			
91.....	2	113	115	118 (not shown on plat).....			
92.....	2	153	155	119 (not shown on plat).....			
93.....	148	142	290	120.....	52	108	160
E. 93 (included in square 93).....				121.....	173	11	184
E. 94 (Metropolitan Rwy. Co. stables).....				122 (Academy of Visitation).....			
94.....	93	217	310	123.....	10	2	12
95.....	5	60	65	124.....	27	2	29
96.....	60	9	69	125.....	15	1	16
97.....	83	8	91	126.....	86	26	112
98.....	88	8	96	127.....	103	77	180
				128.....	53	3	56
				129.....	222	12	234
				130.....	105	6	111
				Total.....	12,314	4,030	16,344

## VILLAGES AND COUNTY OF WASHINGTON, D. C.

VILLAGES.	White.	Colored.	Total.	ROADS.	White.	Colored.	Total.
Anacostia.....	2,116	106	2,222	Grant avenue to Irving street.....	198	189	387
Brookland.....	461		461	Seventh to Ninth streets, Grant avenue to Irving street.....	158	212	370
Burrville.....		172	172	Irving street to Whitney avenue.....	131	156	287
Bennings.....	523	392	915	Seventh to Ninth streets, Irving street to Whitney avenue.....	177	176	353
Brightwood.....	189	70	259	Florida avenue from Ninth to Fourteenth streets.....	144	171	315
Columbia Heights.....	490	138	628	Ninth to Fourteenth streets, Florida to Whitney avenues.....	185	48	233
Eckington.....	58	23	81	Southside Whitney avenue from Ninth to Fourteenth streets.....	172	7	179
Fort Totten.....	32	39	71	Whitney avenue to Spring street.....	183	27	210
Garfield.....		226	226	Seventh to Fourteenth streets, Whitney avenue to Spring street.....	260	85	345
Giesboro.....	272	72	344	Seventh to Fourteenth streets, Military road to Spring street.....	212	98	310
Hillsdale.....	141	1,917	2,058	Brightwood avenue to Piney Branch road.....	41	135	189
Howard Town.....	139	1,262	1,401	Brightwood avenue to Rock Creek, and Military road to District of Columbia line.....	85	43	128
Ivy City.....	76	121	197				
Lincolnton.....		98	98				
Lanier Heights.....	94	12	106				
Le Droit Park.....	1,137	49	1,186				
Mount Pleasant.....	856	99	955				
Winthrop Heights.....	236	126	362				
Meridian Hill.....	278	1,056	1,334				
Ruppliville.....	116	1	117				
South Brookland.....	41		41				
Tennallytown.....	520	211	731				
Twining City.....	123		123				
Takoma.....	152	20	172				
Terra Cotta.....	87	7	94				
Washington Heights.....	225	75	300				
Catholic University.....	87		87				
Freedmen's Hospital.....	10	108	118				
Howard University.....		48	48				
Insane Asylum.....	1,745	276	2,021				
Soldiers' Home.....	764	19	783				
Trinidad.....	466	5	471				

## 114 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Census by squares—Continued.

## VILLAGES AND COUNTY OF WASHINGTON, D. C.—Continued.

	White.	Colored.	Total.		White.	Colored.	Total.
ROADS—continued.				ROADS—continued.			
Brightwood avenue to District of Columbia line, and Shepherd road to Blair road.....	166	76	242	Brentwood road.....	186	22	208
Rock Creek Church, Brightwood and Shepherds roads.....	132	44	176	Washington Brick Machine Company.....		63	63
Grant avenue, Ninth street to Florida avenue.....	196	329	525	Florida avenue.....	21		21
Grant avenue to Florida avenue, and Eighth to Ninth streets.....	219	614	833	Bladensburg road.....	779	182	961
Florida avenue to Grant avenue, and Seventh to Eighth streets.....	293	260	553	Wheeler road.....	143	14	157
Sixth to Seventh and Pomeroy to College streets.....	196	300	496	Nichols road.....	112	22	134
First to Seventh streets from College street to Rock Creek Church road.....	420	193	613	Minnesota avenue from Harrison street to Ridge road.....	199	58	237
Queens Chapel road.....	13	1	14	Ridge road from Minnesota avenue to Bowen road.....	15	5	20
Bates road.....	78	5	83	Hamilton road from Stanton avenue to Naylor road.....	14	284	298
Sargent road.....	89	12	101	Naylor road from Eastern Branch to Bowen road.....	28	13	41
Bunker Hill road.....	51	12	63	Bowen road from Naylor to Benning roads..	159	131	290
Riggs road.....	81	9	90	German Orphan asylum and Good Hope road..	46	2	48
Lincoln avenue and east corner Florida avenue.	34	20	54	All north of corporation line to District line east of Wisconsin avenue, not including Tennallytown and Fort Reno.....	626	281	907
Keating avenue.....	39	37	76	All west of Wisconsin avenue and corporation line from the Potomac River to the District line.....	1,082	255	1,337
Prospect street.....	47	14	61	Total.....	19,042	11,387	30,429
Sumner Hill between Eckington and Lincoln avenues.....	138	13	152				
Queens Chapel and Brentwood roads.....	52	41	93				

## SUMMARY.

	White.	Colored.	Total.
Washington.....	142,254	69,404	211,658
Georgetown.....	12,314	4,030	16,344
County.....	19,042	11,387	30,429
Total.....	173,610	84,821	258,431

## REPORT OF SANITARY OFFICER.

HEADQUARTERS METROPOLITAN POLICE,  
SANITARY OFFICE, Washington, D. C., July 1, 1892.

SIR: I respectfully beg leave to submit to you my annual report, setting forth the operations of the sanitary office of the Metropolitan police for the fiscal year ending June 30, 1892.

While it is true that the statistics presented herewith do not exhibit by a considerable degree the great amount of work that is required or sought to be forced upon the sanitary officer by those who are ignorant of the laws governing the police department and the regulations controlling the administration of the affairs in the sanitary office, yet the figures will nevertheless demonstrate the steady increase in the legitimate work of the office, which, however, quite naturally comes with the growth in population. It is quite frequently the case, and especially has it been the condition during the year just closed, that at times, on account of the urgent pressure, I have found it a great task to dispose of the various applications of every nature with that promptness and thoroughness which each worthy case demands, involving, as all applications do, the most complete and rigid investigation as to the right in claiming aid from the police authorities. Yet I feel that I have success-



fully and legally disposed of every appeal for assistance brought to my attention, whether for hospital treatment or for transportation beyond the limits of the District.

In view of this pressure upon the office, I am pleased to acknowledge your efforts to provide as soon as practicable some means for relief to the sanitary officer, which would greatly facilitate the transaction of the business more properly pertaining to his office.

#### TRANSPORTATION.

This part of the "sanitary" work of the office constitutes no inconsiderable portion of its operations. The primary object of this fund is to provide transportation for the worthy and destitute who are "liable to become a charge upon the District of Columbia." Yet so inviting is its beneficence, that it is sought to be used by many who are able to pay their way, as well as by the disappointed office-seeker, the impetuous claimant, the fraudulent tramp, the suspicious imposter, and the delusive "crank." To guard against this class who infest the capital requires the most thorough investigation and vigilant discrimination. Where applicants have been found to be worthy subjects of this public charity I have not failed, with your approval, to afford the desired relief and send the unfortunates on their way homeward rejoicing.

The request for assistance made by tramps and imposters have been more frequent during the past year, while the number of those classed as cranks has somewhat diminished, being ten, or thirteen less than the previous year. It may be properly regarded as an "off year" for the crank, so far as Washington is concerned, and we may attribute his absence during the past year to the influence of some good agency, and conclude that a goodly number of this portion of the human family have "sought other fields and pastures new," and are doubtless quite content for a time to occupy a less lucrative and responsible position than that of the Chief Magistrate of the nation, and are perhaps quietly performing the functions of their imaginary offices in some more remote or less exciting locality. It is more than likely, however, that the crank will be largely present after the approaching Presidential election and the following inauguration. During the past year the whole number of persons furnished with transportation to their homes (or as near thereto as practicable) was 665, as against 622 for the preceding year, at an expenditure of \$1,669.95, or \$176.44 less than for the previous year. In addition to this there was paid the sum of \$62.68 for the transportation of police escort for eight persons, while for the year previous the amount paid for the same purpose (five persons) was \$32.82; making a total expenditure for transportation during the last fiscal year of \$1,732.63, or \$146.58 less than for the former year.

It will thus be observed that, while there has been an increase in the number of persons provided with transportation during the past year, the expenditures for the purpose was \$146.58 less than during the year prior, which difference is attributed to the shorter distances traveled and a slight reduction in rates of fare. Embraced in the number thus provided we find 126 ex soldiers and sailors, most of whom were attracted here by the mistaken idea that their presence at the capital would effectually hasten the granting of their claims for pension, and who, becoming disappointed, were left destitute in our midst and unable to return to their homes, some quite distant. The number of ex-soldiers who were aided in like manner during the previous year was 154; a decrease of 28. In this connection it is pleasing to note that, even to this small extent our advice to the old soldier in past reports has had some good results. It is a duty earnestly but kindly performed to reiterate the admonition of former years and further impress upon these worthy claimants the utter uselessness of their personal presence in this city to urge their claims, more especially as ample means are provided for the collection of pensions in all sections of the country. I recommend the usual appropriation of \$2,000 for the transportation fund for the fiscal year ending June 30, 1894, and further urge the advisability of making such appropriation separate and distinct from that for the "transportation of prisoners."

#### THE HOSPITALS.

During the year just closed the number of persons sent to the various hospitals in the District was 2,577, an increase of 5 over the year prior, when the prevalence of the "grip" largely required our attention for hospital care. Although this is a comparatively small increase, yet, when we consider the circumstances, it unmistakably demonstrates the growing necessity for hospital treatment, which we aim to grant first to the poor and indigent residing in the District of Columbia.

I again point out the manifest injustice of providing hospital permits to those who come to us from our neighboring States of Virginia and Maryland for the purpose. Within the year 187 permits were granted to those claiming to come from the former State, an increase of 63 over the year preceding, while from the latter State we have recorded 139 applicants, or an increase of 30. I believe we may account for this mainly because of the superior skill employed and the excellent management of our



local hospitals. It may be noted, however, that in the case of those coming from Maryland, they seem to overlook the advantages offered by the sanitary institutions of their own State, and especially the Johns Hopkins Hospital, which is generally conceded to be an infirmary of the highest order. Be that as it may, we find it a hard thing to refuse a permit for care and medical treatment to anyone who may be suffering and in distress, notwithstanding it is a well-known fact that one-half of the cost of maintaining our hospitals is borne by the tax-payers of the District.

It is with great satisfaction that I refer to the proposed establishment in the District of an institution for the treatment of contagious diseases. The meeting of this long-felt want seems to be taking definite shape, and the project will doubtless be consummated in a reasonable time. Hitherto it has been unfortunate that we have been unable to admit to any of our hospitals those suffering from maladies of an infectious nature, excepting what accommodation in a small way, and under extraordinary circumstances, may have been extended by those in charge of the Freedmen's Hospital to sufferers from erysipelas. Of course I do not allude to smallpox cases, as they are otherwise provided for. No more humane enterprise could be instituted than that in mind and as proposed by an organization of noble ladies known as the "Daisy Chain." All good citizens should offer these workers every encouragement, as the completion of such a hospital would be a great blessing to the community, and at the same time obviate one difficulty with which this office has had to contend, *i. e.*, the proper disposition and care of those suffering with contagion.

It is gratifying to again note our continued pleasant personal and official relations with those in charge of the several hospitals. In many instances upon my application unusual accommodations have been granted in cases of emergency; and without specifying, I will state that these persons have promptly and cheerfully performed their duty to the public so far as this office is concerned.

#### AMBULANCE SERVICE.

For the year the number of runs made by the ambulances under the directions of this department was 1,741, being ten more than were made during the former year, when the epidemic of the grip then prevailing greatly taxed the service. This of course shows that the good work of this branch of the police system continues to be a growing necessity, while its capacity is no greater. We presume somewhat upon considerable relief that may be afforded by the new and completely equipped ambulance which is soon to be put into service by those in charge of the emergency hospital. Of the 1,741 calls for the ambulances 159 are returned as having rendered no service. To avoid much of this unnecessary work I think it wise to suggest to physicians, officers, patrolmen, and others making calls to fully satisfy themselves of the absolute need of the assistance at the time. It has frequently occurred that while both ambulances were out on their fruitless errands urgent and dangerous cases were removed in open patrol wagons, much to their discomfort and disadvantage.

I again commend to your notice the faithfulness and promptness of our poorly paid men in the service of the Government, with the daily assurance that they are reasonably compensated. These men greatly appreciate your efforts for an increase in their pay and still patiently hope for the desired relief. The pay of the driver should not be less than \$50 per month, and that of the two assistants not less than \$45 each.

The proposed removal of the ambulance stables from the fourth precinct station to that of the second is greatly urged and as provided for by the present Congress will not only add to the general safety and increase the promptness of the service but will greatly relieve the strain upon the drivers as well as the horses. The present location of the stables is found to be inconvenient in many ways, especially in regard to the crossing of the railway tracks in South Washington, and and more generally in all cases of emergency.

#### THE INSANE.

The total number of persons admitted to the Government Hospital for the Insane, through this office, during the last fiscal year was 159, a decrease of 12 as compared with the previous fiscal period. This decrease, though small, I regard as a gratifying exhibit, more especially as former reports have shown a yearly increase. These persons have received the usual trial by jury and have been committed by due process of law.

I again urgently repeat the absolute need of some suitable and healthy place of temporary confinement for insane subjects awaiting the proper legal proceedings before their final commitment, which process usually occupies from three to five days. This is especially necessary in the case of those becoming suddenly violent

and such as may be broken physically as well as mentally. We prefer not to detain them, especially females, in a station-house cell, which is our only place of confinement, as the surroundings are not always such as might be soothing and comforting to a disordered mind. Humanity suggests the propriety of doing something in this direction, and I hope some wise measure can soon be adopted looking to the fulfillment of this most pressing need.

The public are much indebted to Dr. Godding, the efficient superintendent of the Government Hospital for Insane (where all the insane of the District are treated), for his considerate and humane action, in every instance where practicable, in taking charge of these violent cases and such as may be without home care during their temporary custody in this department, and before receiving the proper legal authority for their final admission. This gentleman, appreciating our lack of accommodations, has therefore rendered a good service not only to the patient, but to the physicians, the courts, the attorney for the district, and the sanitary officer, for his voluntary course in relieving the police department of a somewhat serious responsibility. I consider that his action in such cases can not be too gratefully acknowledged by the people of the District.

#### ASYLUM FOR INEBRIATES.

Continued observation has not changed public opinion in regard to the absolute need of an asylum in the District for the treatment of inebriates. I have urged this in previous reports, and in again renewing my suggestions in the matter I deem it proper to add that such a retreat could be erected on some of the public grounds, say the Washington Asylum, at a comparatively small outlay. It is a well-known fact that we have in our community, and doubtless always will have, those who have become morally, mentally, physically, and financially wrecked by the excessive use of alcohol, many of whom are men of intellect and could by compulsory treatment be reclaimed to society and become useful citizens. Such an institution would, in the view of the sanitary officer, accomplish results equal for good to those of any hospital devoted to charitable or humane work. My own personal observation leads me to the statement that many cases of insanity brought to the attention of this office are directly due to the free use of intoxicants, and that which we are unable to prevent we may be possibly correct. I trust that in the near future some action may be taken by our philanthropists and the Christian organizations to induce Congress to make the required appropriation for this most laudable purpose.

I can not conclude this report without expressing my grateful acknowledgment of your judicious counsel and liberal support in the performance of the duties of this office. I am also indebted to the officers at headquarters and the lieutenants of the several precincts for important information and coöperation on many occasions. I also wish to record my thanks to the attorney for the District and the judges of the police court for their courteous attention and assistance in several cases. To Dr. Godding, who has generously provided for the insane in advance of their commitment, I am under especial obligations. I further wish to offer thanks to the intendant of the Washington Asylum and all those in charge of the hospital, the physicians to the poor, the United States marshal and his assistants, and the police surgeons; also Officer Wilson of the Humane Society, and all other representatives of the several homes and charitable institutions connected with the work of the Police Department.

Respectfully submitted,

J. A. FRANK,  
*Sanitary Officer, Metropolitan Police*

Maj. WILLIAM G. MOORE,  
*Superintendent Metropolitan Police.*

#### REPORT AGENT OF HUMANE SOCIETY.

HEADQUARTERS METROPOLITAN POLICE,  
*Washington, D. C., July 1, 1892.*

SIR: I have the honor to submit this report of my transactions, in conjunction with the Humane Society of the District of Columbia, for the year ending June 30, 1892.

In submitting this report I would earnestly call your attention to the large number of abandoned infants provided for since my last report. The majority of these children are illegitimate and are abandoned through the inability of their mothers to care for them. If there were some law enacted to compel their fathers to provide for them until such time as they could otherwise be properly cared for, this crying evil would be reduced to a minimum.

I also earnestly call your attention to my recommendation of last year to the neces-



# 118 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

sity of a law to compel husbands to care for their wives and children. If such a law was passed the charitable institutions of this District would be relieved of a heavy drain on their funds, and many wives and children would be made happy and comfortable.

It can not be urged too earnestly the necessity of protecting children surrounded by immoral influences, as in cases where men and women are living in adultery and having children with them.

It is very gratifying to know that the law has finally passed to establish a reform school for girls in the District of Columbia. It is a need that has long been felt, and will be duly appreciated by all who have the welfare of those that it is intended to benefit at heart.

In conclusion, I would again express my thanks to all those who have in any manner aided me in the discharge of my duties.

I respectfully submit the following report of the number and disposition of cases investigated for the year ending June 30, 1892:

Cases investigated .....	311
Persons prosecuted .....	19
Persons sent to jail .....	2
Persons execution of sentence suspended and personal bonds taken .....	3
Cases dismissed .....	6
Cases nol. pros. entered .....	4
Cases sent to grand jury .....	1
Cases amicably adjusted .....	295
Total .....	311

	White.		Colored.		Total white.	Total col'd.	Total.
	Male.	Female.	Male.	Female.			
Abandoned infants sent to—							
St. Ann's Infant Asylum .....	1			2	1	2	3
Colored infant asylum .....			6	5		11	11
Other homes provided .....				6		6	6
Total .....	1		6	13	1	19	20
Children taken from parents or guardian and committed to—							
Colored National Home by order police court .....				2		2	2
Washington Asylum by order police court .....				3		3	3
Washington City Orphan Asylum by order police court .....		1			1		1
Total .....		1		5	1	5	6
Children taken from parent or guardian and committed to homes and reformatories by society's agent .....							188
Children committed to—							
Industrial Home School .....	21	17			38		38
Washington City Orphan Asylum .....	17	14			31		31
German Orphan Asylum .....	6	5			11		11
National Colored Home .....			8	10		18	18
St. Ann's Infant Asylum .....	1	9	2		10	2	12
Colored Infant Asylum .....			6	6		12	12
Washington Hospital for foundlings .....	4	2			6		6
Reform School .....	6				6		6
House of the Good Shepherd .....		11			11		11
House of Mercy .....		5			5		5
St. Joseph's Orphan Asylum .....	1				1		1
Washington Asylum .....			4	2		6	6
Newsboys' Home .....	7		5	2	7	7	14
St. Mary's Industrial School, Baltimore .....	3				3		3
Maryland Institution for the Blind, Baltimore .....			1	1		2	2
Home for Friendless Colored Girls .....				3		3	3
Other homes .....	1	3	1	3	4	4	8
Hospitals .....			1			1	1
Total .....	67	66	28	27	133	55	188

Respectfully submitted.

SAMUEL WILSON,  
Agent Humane Society.

Maj. WILLIAM G. MOORE,  
Superintendent Metropolitan Police.



## REPORT OF THE HARBOR MASTER.

POLICE HARBOR AND PATROL BOAT,  
HARBOR MASTER'S OFFICE,  
*Patrol-Boat Wharf, Washington, D. C., June 30, 1892.*

SIR: The following report of the operations of the police patrol-boat service for the fiscal year ending June 30, 1892, is respectfully submitted:

The work has been performed by the harbor master as commander, with a crew of 1 engineer, 1 deck hand, 1 watchman, and 3 police officers.

The boat and its crew have been employed in keeping a clear channel, saving human lives, recovering the bodies of drowned, and in preventing disorder around the wharves. In fact, the service rendered has been commendable, when the size of the boat is taken into consideration. As I have stated in my former reports, the boat is too small for the duties it has to perform.

During the last fiscal year there were several fires along the river front. On the morning of September 3 the steamer *W. W. Corcoran* burned while lying at her dock. The fire department responded promptly to the alarm, but its services were rendered practically useless on account of little or no facilities to battle with a fire in mid-stream. A valuable vessel was sacrificed, whereas if there had been a properly equipped police boat the loss would have been small. I most respectfully urge that an appropriation for a boat with all modern police, harbor, and fire equipments, such as is employed in other cities, be asked of Congress.

The employes of this department have each done well his share of work. I commend each of them to your most favorable consideration, and to each one I convey my sincere thanks.

That some idea may be had of what has been accomplished in detail during the past year, I herewith include an abstract from the boat's log book:

1891.

- July 2. Recovered body of Theo. Moore.
- 25. Recovered body of unknown woman at Alexandria.
- 25. Recovered body of Michael Curtin.
- 25. Recovered body of William McGrath.
- 25. Recovered body in Rock Creek.
- Aug. 2. Moved 3 boats from Washington Channel.
- 6. Moved 6 boats from Washington Channel.
- 11. Arrested 4 boys as fugitives from parents.
- 12. Moved 3 boats from Washington Channel.
- 13. Recovered boat stolen from navy-yard.
- 15. Recovered body of William B. Smith.
- 16. Arrested 2 men for fourth precinct.
- 18. Patrolled course during International Regatta.
- 19. Patrolled course during International Regatta.
- 23. Assisted parties in capsized yacht.
- 25. Recovered stolen bateau.
- 27. Responded to an alarm of fire.
- 28. Arrested man for disorderly conduct.
- 28. Recovered sailboat and turned it over to owner.
- 30. Confiscated sturgeon net off Alexandria.
- Sept. 1. Recovered body of white woman.
- 2. Recovered body of colored boy.
- 3. Turned in alarm for fire on *W. W. Corcoran*.
- 3. Recovered body of Robert Grantlin.
- 3. Recovered body of white boy.
- 4. Recovered body of Harry McGraw.
- 6. Removed obstruction from forks of channel.
- 7. Removed 5 boats from Washington Channel.
- 8. Dragged for hose for Fire Department.
- 17. Removed 5 boats from Washington Channel.
- 18. Recovered body of Holly S. Heath.
- 19. Recovered skiff and turned it over to owner.
- 20. Recovered body of Augustus Auldreich.
- 25. Removed 2 vessels from Washington Channel.
- 27. Recovered body of Silas King.
- 28. Removed 1 vessel from channel.
- 29. Arrested 3 persons for disorderly conduct.
- Oct. 2. *Mary Washington* sunk long boat.
- 4. Followed prize-fighters beyond District line.
- 5. Removed 2 vessels from channel.

# 120 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

1891.

- Oct. 11. Removed 2 vessels from channel.
- 12. Assisted disabled sailboat at Fort Foote.
- 15. Arrested 2 men for disorderly conduct.
- 21. Removed 2 vessels from channel.
- Nov. 13. Recovered body of Joseph Jupiter (colored).
- 17. Recovered sloop that had broken adrift.
- 24. Recovered fugitive from parents.
- Dec. 3. Moved large barge from Georgetown Channel.
- 8. Arrested 2 white men for housebreaking.
- 9. Moved 2 vessels from channel.
- 13. Moved 2 vessels from channel.
- 18. Moved 2 vessels from channel.
- 26. Recovered body of Dennis Clark.
- 28. Recovered stolen boat and turned it over to owner.

1892.

- Mar. 12. Prevented affray between whites and colored at oyster wharf.
- 12. Followed prize-fighters to district line.
- 20. Arrested Oliver Pecker for Fourth precinct.
- June 3. Recovered body of Richard Hunter.
- 4. Arrested 2 white men for disorderly conduct.
- 15. Recovered body of Eugene Underwood.
- 17. Recovered body of George Davis.
- 17. Recovered body of Michael Gleason.
- 19. Removed 3 vessels from channel.
- 25. Removed 2 vessels from channel.
- 26. Removed 2 vessels from channel.
- 28. Removed 1 vessel from channel.
- 30. Removed 2 vessels from channel.
- Respectfully submitted.

Maj. WILLIAM G. MOORE,  
Superintendent of Metropolitan Police.

J. R. SUTTON,  
Commanding Patrol Boat.

## REPORT OF THE HACK INSPECTOR.

DEAR SIR: I have the honor to submit the following report for the year ending June 30, 1892:

Vehicles licensed .....	574
Vehicles inspected .....	565
Vehicles rejected .....	16
Vehicles reinspected and passed .....	15
Licenses transferred .....	13
Articles left in vehicles reported by passengers .....	23
Articles found in vehicles reported by drivers .....	38
Cases tried at police court .....	84
Cases amicably adjusted .....	33
Hack stands in the city .....	25
Visits to the various stands .....	394

I have personally inspected all licensed public vehicles, and rejected all unfit for service. I have found a few not exactly, in appearance, as I would want them; but I have not rejected them because the substantialness which they had is the most essential qualification. Trade regulates appearances. Patrons always select the finest appearing vehicles, and owners, realizing this, are seldom slow to discover that it is to their financial benefit not to allow their vehicles to become very shabby in appearance. My frequent visits to the hack stands resulted in a marked improvement in the appearance of vehicles, and benefited the service in general. All cases of the slightest irregularity were immediately investigated, and the guilty parties held to strict account.

As much as I can learn of other cities, I believe that our hack system is at present effectually second to that of no other city. Yet there is room for improvement.

I respectfully suggest that your suggestion of the last fiscal year to the honorable Commissioners to license all drivers of public vehicles be again urged upon them.

Also, that provision be made to publish in pamphlet form all the laws pertaining to the hack service, a copy to be furnished each driver, that they may be conversant

with every detail and have no excuse to plead ignorance of any of the laws and regulations.

In conclusion allow me to express my thanks for your many untiring efforts, kind acts, and beneficial suggestions for the promotion of the hack service. I must not neglect also to acknowledge my appreciation of the earnest efforts of many of the officers of your department to give to this representative city a representative hack system.

Yours, respectfully,

SAMUEL A. GROFF,  
*Hack Inspector.*

WILLIAM G. MOORE,  
*Major and Superintendent Metropolitan Police.*





G.

## REPORT OF THE CHIEF ENGINEER OF THE FIRE DEPARTMENT.

WASHINGTON, *June 30, 1892.*

GENTLEMEN: I have the honor to submit my seventh annual report since my incumbency, showing in detail the operations of the department for the fiscal year ending June 30, 1892.

### OFFICERS OF THE DEPARTMENT.

Joseph Parris, chief engineer; Louis P. Lowe, first assistant chief; William T. Belt, second assistant chief; William O. Drew, fire marshal; Jilson D. Entwisle, clerk.

### ENGINE HOUSES.

The houses occupied by the department are eleven in number, eight of which are engine houses and three are truck houses. The houses occupied by engine companies 2 and 4 are unfit for the purpose for which they are used and should be replaced by new and properly arranged structures. No. 2 house especially is of insufficient size and is very poorly ventilated. I have included items in the estimates of \$12,000 for each of the houses named. The condition of all the remaining houses is good. Engine house No. 3, although occupied by the department, is the property of the United States Government; in consequence great trouble is experienced in having necessary repairs made.

### DISCIPLINE.

Discipline and good conduct have been of paramount importance in governing the department. Occasions have been presented, however, to pass official reprimand upon certain members for unbecoming conduct. Some have been dismissed as unworthy of men called to guard the lives and property of their fellow-citizens. I am determined to enforce the observance of rules and obedience to officers, which can alone make a department like this effective, and it is a duty I owe to the public, where rules are disregarded, to promptly bring the offender to justice. Neglect to do this would tend to demoralize the department. The men have been regularly drilled during the year. All persons appointed to positions in the department are required to serve a term of twelve months on probation and pass a quarterly examination as to duties required.

### PAY AND PROMOTION.

I have the honor to state that the members of the department have received no increase of pay, except \$5 per month, since its organization. They are required to live in close proximity to the engine or truck house to which they are assigned for duty. The improvements and advances

in real estate has made it hard for them to have for their families anything but the plainest necessities. Rents have advanced in proportion to the value of property; each man has to purchase on an average four suits of clothes a year, besides having \$1 deducted from his pay each month for the benefit of the firemen's relief fund. If no relief is granted, the pleasure of having home and family will be denied them, on account of the meager compensation received for services that are invaluable to the community. In answers to letters addressed to eleven cities I find that in ten of them the pay is very much larger than the advance asked for in the estimates. I renew my request for the promotion of eleven privates to the rank of assistant foremen, and eleven privates to the rank of assistant hostlers, with a corresponding increase of pay. The assistant foreman, in the absence of the foreman, has to assume all the responsibilities, and in my opinion the promotion and increase of pay is no more than just, in consideration of additional services.

## NEW TRUCK.

I would respectfully ask that the sum of \$3,500 be appropriated to purchase a new aerial turntable truck, to replace the present old truck now in service at Truck B.

Cities.	Population.	Acres.	Fire plugs.	Regular employes.	Cost of fire department.	Cost of force to each head of population.
New York .....	1,515,301	25,740.80	8,500	1,027	\$1,613,296	\$1.06
Chicago .....	1,099,850	102,764.80	6,400	916	700,437	.64
Philadelphia .....	1,046,964	82,809.60	7,433	521	625,000	.60
Brooklyn .....	806,343	16,934.40	3,948	527	562,944	.70
St. Louis .....	451,770	39,264.00	3,402	359	277,869	.62
Boston .....	448,477	22,579.20	6,045	*475	800,000	1.78
Cincinnati .....	296,908	16,000.00	3,133	283	271,672	.92
Cleveland .....	261,353	15,923.20	3,257	209	200,000	.77
Buffalo .....	255,664	24,985.60	2,407	315	224,725	.88
Detroit .....	205,876	13,177.60	2,237	216	211,187	1.03
Milwaukee .....	204,468	10,880.00	1,433	210	168,547	.82
Washington .....	258,431	6,553.60	1,259	130	109,000	.42

\* Call 202.

NOTE.—The cities are those for which the necessary facts were given in Census Bulletin No. 100. The returns are all for the census year except Washington, which is brought down to date. Cities having half or more of their force subject to call are not included.

I submit the above table of the relative expenditures for fire departments in twelve American cities. It will be seen that Washington foots the list, both in smallness of force and meagerness of per capita expenditure. Boston spends more than four times as much as we do in proportion to size and nearly all the cities spend more than twice as much per head as we. No single city is equally parsimonious in this branch of the service. Formerly such a penurious policy was defended on the ground that Washington was a residence city, with broad streets, and fires were therefore not likely to spread. That condition of things has passed away. Tall modern business blocks now thickly line our narrower streets, and if a fire once gets well started in these quarters the fire department must stop it or it will not stop. After a million or two of property has gone up in smoke and the insurance companies have raised their rates of insurance for business risks in the city, the saving of a few thousand dollars by skimming the fire department will be seen to have been the saving that tendeth to wastefulness. Two



ordinary fires or one large one now call for the whole force. There is absolutely no reserve for anything beyond this. We are trusting blindly to good luck to save us from disaster.

Adequately to protect the business sections and the large number of buildings in the outlying and now wholly defenseless sections of the city, there should be added to the present force and equipment 6 engine companies, three truck companies, 3 chemical companies, 1 reserve engine, 1 reserve hose carriage, and 100 men.

#### WATCHMEN.

There are now in the department six watchmen, and I would respectfully recommend the appointment of six in addition to these. Six privates now on duty are partially disabled, and should be assigned to duty as watchmen, which duty they could well perform, and which appointment they have faithfully earned by long and faithful service, of which their disabilities are a result. By such transfers the department would be benefited by acquiring able-bodied men in places now filled by the privates above mentioned.

#### ADDITIONAL PRIVATES.

I have the honor to repeat my recommendation that two additional privates be appointed to each engine company and one to each truck company, thereby making the number to each company twelve instead of ten, as at present. The addition of these men I consider necessary for the more effectiveness of the department.

#### RELIEF FUND.

Each fireman in the department has to pay \$1 per month toward the firemen's relief fund designed to afford a retiring pension in case of disability incurred in the public service or of advanced age. They have no choice in the matter of making payment. It is deducted each month from the fireman's pay by authority of law, and it has been supposed that this contribution was but an advance made by the members for his own advantage in case of need; but it is manifest that \$12 per annum, even if continued for the extraordinary length of service of thirty-three and one-third years, would amount to only \$400 principal and \$400 interest, \$800 in all, and this sum would give him only sixteen months' pension at \$50 per month. Even when fines, etc., are added they could not be relied on to increase the fund to an extent that would suffice for the pensioning of the meritorious firemen that are disabled or grow old in the service. Now, however mistaken may have been the fiscal calculation on which the fund was based, Congress assumed it to be correct, and compelled the firemen to contribute, and it is now certain that few of those who have contributed to the fund will derive any advantage from it unless Congress shall give that assistance to which the fund seems entitled under the circumstances. The fund has been invested in bonds, but the demand for pensions will render it necessary to sell bonds, and further sales will result in the extinction of the fund unless Congress comes to its aid. I would recommend that Congress be petitioned to pay each year into the fund as much as is paid in by the firemen (this would be no more than just and in line with other appropriations for the maintenance of the District government), or to make an annual appropriation, or any other way to help these dependent persons.

*Statement of firemen's relief fund.*

Balance June 30, 1891 .....	\$172.92
Interest on bonds .....	92.50
Fines .....	105.00
Donations .....	75.00
Retained from pay of firemen .....	1,534.95
Repayment by Mary I. Newman .....	76.45
	<hr/>
	2,056.82
Payment of pensions .....	1,645.00
	<hr/>
Cash balance .....	411.82
	<hr/>
Bonds on hand June 30, 1892:	
District of Columbia 3.65 bonds .....	1,000.00
United States 4 per cent bonds .....	1,400.00
	<hr/>
Total .....	2,811.82

## APPLICATIONS.

During the year there were one hundred and fourteen applications for positions in the department; thirty-one were reported as qualified by the board of surgeons, and twenty-three appointments were made.

## RESIGNATIONS.

On August 22 Private R. T. Cross of Engine Company No. 6 resigned; September 13, James W. Harley of Engine Company No. 1 resigned; November 4, Henry Smart of Engine Company No. 6 resigned; November 6, Fireman Walter Cox of Engine Company No. 6 resigned; November 30, Private William T. Hornbach of Truck C resigned; March 31, Michael L. Raedy of Engine Company No. 6 resigned; April 26, William D. Baxter of Truck Company A resigned; April 30, Rudolph Ball of Engine Company No. 1 resigned; May 4, John M. Barry, jr., of Engine Company No. 2, and Frank Cross of Engine Company No. 8 resigned; May 31, Henry T. Brown of Truck Company A resigned; June 16, J. B. Clark of Engine Company No. 2 resigned.

## OFFICER IN CHARGE OF APPARATUS REPAIRS.

I have the honor to recommend that a practical machinist and engineer be employed to take charge of repairs to all apparatus, respond to alarms of fire, and make an inspection of the workings of each engine at fires; also a daily tour to each house and inspect all the apparatus. He will be charged with the control and direction of employés, and see that the time of all assigned him is employed to the greatest advantage to the department. He shall be subject to the rules and regulations for the government of the fire department and the orders of the chief engineer. That such officer be employed at a salary of \$1,200 per annum.

## PROMOTIONS AND DISMISSALS.

F. C. Dodge was promoted to fireman November 7, 1891; Joseph Mulhall to tillerman May 1, 1892; P. J. Carroll to engineer; James F. Reynolds to fireman June 1, 1892; J. G. Willson to assistant foreman June 17, 1892. Nine members of the department were dismissed.



## HORSES.

The stock belonging to and in use by the department consists of sixty. Seven were condemned and turned over to the property clerk; fourteen were purchased. They are distributed as follows:

Eight engine companies.....	32
Three truck companies.....	9
Two fuel wagons .....	2
Two supply wagons.....	2
Used by officers.....	4
Extras.....	11
Total .....	60

The horses designated as extras are kept as substitutes in case of sickness or accident.

## REPORT OF THE DISTRICT VETERINARIAN.

WASHINGTON, D. C., September 30, 1892.

SIR: I have the honor to transmit the following report as veterinarian to your department for the fiscal year ending June 30, 1892. During the past year seven horses have been condemned as unfit for service and turned over to the property clerk for disposal; fourteen new horses have been purchased and placed in service; seventy-eight fire department horses have been received at hospital for treatment or rest, which were under treatment on an average of about eleven days each (last year the average being sixteen days), making a total of 845 days at hospital. The animals were suffering with the following ailments: Lameness from various causes, tetanus, colds, coughs, pneumonia, influenza, colic, indigestion, diarrhea, nervous prostration, general debility, osteoporosis, eczema, etc. Below will be found a list giving location and condition of the different horses of this department.

House.	Horses.	Good.	Fair.	Bad.
Truck A.....	5	4	1	.....
B.....	5	4	1	.....
C.....	6	5	.....	1
No. 1.....	5	3	1	1
2.....	5	4	1	.....
3.....	4	1	1	2
4.....	6	5	.....	1
5.....	6	4	1	1
6.....	5	5	.....	.....
7.....	5	4	1	.....
8.....	5	4	1	.....
Hospital .....	3	1	1	1
Total .....	60	44	9	7

It will be seen by the above table that we have at present sixty horses in the department. Forty-four of these are in prime condition and fit for any service required of them; nine are in fair condition and fit for extra horses, but are not to be depended on for hard service; seven are unfit for service and should be turned over for disposal as soon as new ones can be purchased to replace them. I would draw your attention to the fact that much time and many animals are saved by the sick horses being taken away from the house to which they belong, as in fire-houses there are no conveniences for their treatment.

I would recommend that a hospital stable be built by the District and placed under the supervision of the District veterinarian. This would only require the services of two hostlers in addition to the present force. At this stable all extra horses should be kept, and act as a training school for the new ones. I will again invite your attention to the fact that the present pay of your veterinarian is too low for the amount of service required, and would respectfully ask that it be increased to \$1,000.

I have the honor to be, very respectfully,

C. B. ROBINSON, V. S.,  
District Veterinarian.



## APPARATUS.

The apparatus of the department consists of 10 engines, 8 in service and 2 in reserve; 2 fuel wagons, in service; 4 hook and ladder trucks, 3 in service and 1 in reserve; 1 Holloway chemical engine, capacity 160 gallons. Attached to each of 3 carriages are 2 3-gallon fire extinguishers. Attached to each of 7 carriages are 2 6-gallon fire extinguishers. Attached to 1 truck are 4 5-gallon extinguishers. Attached to 1 truck 2 6-gallon fire extinguishers. Attached to each of 2 trucks are 2 15-gallon fire extinguishers, 2 Empire life-saving nets, and 4 life-saving belts. One wagon for use of the chief engineer, 1 wagon for use of fire marshal, and 1 wagon each for use of the assistant chief engineers; 1 extra wagon; 2 supply wagons, 1 built during the year.

*Fire extinguishers on hand at end of fiscal year June 30, 1892.*

Hose carriage.	Name of maker.	Capacity.	Hose carriage.	Name of maker.	Capacity.
		Gallons.			Gallons.
No. 1 .....	Holloway .....	6	No. 8 .....	Babcock .....	3
No. 2 .....	do .....	6	Truck A .....	Holloway .....	5
No. 3 .....	do .....	6	Truck B .....	do .....	15
No. 4 .....	do .....	6	Truck C .....	do .....	6
No. 5 .....	do .....	6	Extra Truck A .....	do .....	15
No. 6 .....	do .....	6	2 extra carriages .....	do .....	3
No. 7 .....	do .....	6	Chemical .....	do .....	6

Two and three way Siamese, with 3-inch leading hose, are used by the department.

## HOSE.

Eureka Fire Hose Company:	Feet.
Paragon brand, in good condition .....	8,300
Paragon brand, in fair condition .....	2,950
Fabric Fire Hose Company:	
Keystone brand, in good condition .....	1,700
Keystone brand, in fair condition .....	200
Patrol brand, in fair condition .....	150
Goodyear Rubber Company:	
Bay State Jacket brand, in fair condition .....	2,200
Hamilton Rubber Company:	
Hercules brand, in good condition .....	700
Gutta-Percha and Rubber Manufacturing Company:	
Maltese Cross brand, in good condition .....	2,100
Different kinds, unfit for service .....	3,100

Turned over to the property clerk, condemned as unfit for service, 2,550 feet. There was also purchased for use of the department during the year the following:

Paragon .....	Feet.
Maltese Cross .....	2,000
	1,400

Which was distributed to the following engine companies:

Maltese Cross:	
No. 2 .....	
No. 6 .....	700
Paragon:	
No. 5 .....	700
No. 7 .....	1,000
	1,000

*Hose on hand at end of fiscal year June 30, 1892.*

Engine company.	Good.	Fair.	Bad.
	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
No. 1 .....	2,000	400	900
No. 2 .....	800	100	950
No. 3 .....	1,350	750	250
No. 4 .....	1,300	650	300
No. 5 .....	2,100	1,400	450
No. 6 .....	1,900	.....	100
No. 7 .....	1,000	1,900	1,250
No. 8 .....	2,250	400	550
Total .....	12,700	5,600	4,750

*Statement of number of alarms, working hours of engines, ladders raised, etc.*

Companies.	First alarms.	Second alarms.	Special alarms.	General alarms.	Hours engine worked.	Local alarms.	Hose laid.	Hose burst.	Ladders raised.	Times extinguishers used.	Transfers.
<b>Engine company—</b>					<i>h. m.</i>		<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>		
No. 1 .....	110	.....	.....	2	20 40	30	13,850	200	24	15	.....
No. 2 .....	86	1	.....	2	15 5	19	10,350	150	48	12	.....
No. 3 .....	85	2	.....	2	11 10	9	13,150	200	24	2	3
No. 4 .....	82	1	.....	3	27 15	21	12,100	150	108	7	.....
No. 5 .....	46	.....	.....	3	19 55	17	7,550	50	120	4	.....
No. 6 .....	108	2	.....	2	23 35	22	17,800	150	144	15	.....
No. 7 .....	86	1	.....	2	13 6	17	10,100	250	18	14	.....
No. 8 .....	33	.....	.....	3	10 ...	13	5,650	200	40	6	1
<b>Truck company—</b>											
A .....	102	.....	.....	2	.....	1	.....	.....	1,428	3	.....
B .....	60	1	.....	3	.....	8	.....	.....	833	20	.....
C .....	55	.....	.....	3	.....	2	.....	.....	690	1	.....

*Total number of alarms, etc., during the year ending June 30, 1892.*

## Responded to:

Fire alarms .....	218
Local alarms .....	182
Hose laid .....	90,550 feet.
Ladders raised .....	3,477 do.
Times extinguishers used .....	99
Transfers .....	11
Engines worked .....	140 40

*Description of steam fire-engines and trucks.*

Engines.	Style of engine.	Class.	Built by—	Placed in service.	Weight as drawn to fire.	Cylinder.	Pump.	Gallons per minute.
					<i>Pounds.</i>			
No. 1 .....	Double upright crane-neck, piston.	Second	Amoskeag Co.	Dec. 9, 1886	8,200	6½ by 8	4½	700
No. 2 .....	Upright crane-neck, double-pump piston.	First	Clapp & Jones	Dec. 16, 1891	8,975	9 by 8	5½ by 8	1,000
No. 3 .....	Crane-neck, double piston.	Third	do .....	Nov. 16, 1889	7,060	7 by 7	4½ by 7	600
No. 4 .....	Crane-neck, rotary.	do ...	Silsby Manufacturing Co.	Sept. 9, 1879	7,250	11 by 5½	4½	600
No. 5 .....	Single horizontal piston.	Fourth	Clapp & Jones	Nov. 17, 1883	6,200	8 by 8	4½ by 8	450
No. 6 .....	Double pump, upright crane-neck piston.	Second	do .....	Nov. 18, 1889	7,940	8½ by 7	5 by 7	700

## APPARATUS.

The apparatus of the department consists of 10 engines, 8 in service and 2 in reserve; 2 fuel wagons, in service; 4 hook and ladder trucks, 3 in service and 1 in reserve; 1 Holloway chemical engine, capacity 160 gallons. Attached to each of 3 carriages are 2 3-gallon fire extinguishers. Attached to each of 7 carriages are 2 6-gallon fire extinguishers. Attached to 1 truck are 4 5-gallon extinguishers. Attached to 1 truck 2 6-gallon fire extinguishers. Attached to each of 2 trucks are 2 15-gallon fire extinguishers, 2 Empire life-saving nets, and 4 life-saving belts. One wagon for use of the chief engineer, 1 wagon for use of fire marshal, and 1 wagon each for use of the assistant chief engineers; 1 extra wagon; 2 supply wagons, 1 built during the year.

*Fire extinguishers on hand at end of fiscal year June 30, 1892.*

Hose carriage.	Name of maker.	Capacity.	Hose carriage.	Name of maker.	Capacity.
		<i>Gallons.</i>			<i>Gallons.</i>
No. 1 .....	Holloway .....	6	No. 8 .....	Babcock .....	3
No. 2 .....	do .....	6	Truck A .....	Holloway .....	5
No. 3 .....	do .....	6	Truck B .....	do .....	15
No. 4 .....	do .....	6	Truck C .....	do .....	6
No. 5 .....	do .....	6	Extra Truck A .....	do .....	15
No. 6 .....	do .....	6	2 extra carriages .....	do .....	3
No. 7 .....	do .....	6	Chemical .....	do .....	6

Two and three way Siamese, with 3-inch leading hose, are used by the department.

## HOSE.

Eureka Fire Hose Company:	<i>Feet.</i>
Paragon brand, in good condition .....	8,300
Paragon brand, in fair condition .....	2,950
Fabric Fire Hose Company:	
Keystone brand, in good condition .....	1,700
Keystone brand, in fair condition .....	200
Patrol brand, in fair condition .....	150
Goodyear Rubber Company:	
Bay State Jacket brand, in fair condition .....	2,200
Hamilton Rubber Company:	
Hercules brand, in good condition .....	700
Gutta-Percha and Rubber Manufacturing Company:	
Maltese Cross brand, in good condition .....	2,100
Different kinds, unfit for service .....	3,100

Turned over to the property clerk, condemned as unfit for service, 2,550 feet. There was also purchased for use of the department during the year the following:

Paragon .....	<i>Feet.</i>
Maltese Cross .....	2,000
	1,400

Which was distributed to the following engine companies:

Maltese Cross:	
No. 2 .....	700
No. 6 .....	700
Paragon:	
No. 5 .....	1,000
No. 7 .....	1,000



*Hose on hand at end of fiscal year June 30, 1892.*

Engine company.	Good.	Fair.	Bad.
	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
No. 1 .....	2,000	400	900
No. 2 .....	800	100	950
No. 3 .....	1,350	750	250
No. 4 .....	1,300	650	300
No. 5 .....	2,100	1,400	450
No. 6 .....	1,900	.....	100
No. 7 .....	1,000	1,900	1,250
No. 8 .....	2,250	400	550
Total .....	12,700	5,600	4,750

*Statement of number of alarms, working hours of engines, ladders raised, etc.*

Companies.	First alarms.	Second alarms.	Special alarms.	General alarms.	Hours engine worked.	Local alarms.	Hose laid.	Hose burst.	Ladders raised.	Times extinguishers used.	Transfers.
Engine company—					<i>h. m.</i>		<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>		
No. 1 .....	110	.....	.....	2	20 40	30	13,850	200	24	15	.....
No. 2 .....	86	1	.....	2	15 5	19	10,350	150	48	12	.....
No. 3 .....	85	2	.....	2	11 10	9	13,150	200	24	2	3
No. 4 .....	82	1	.....	3	27 15	21	12,100	150	108	7	.....
No. 5 .....	46	.....	.....	3	19 55	17	7,550	50	120	4	.....
No. 6 .....	108	2	.....	2	23 35	22	17,800	150	144	15	.....
No. 7 .....	86	1	.....	2	13 6	17	10,100	250	18	14	.....
No. 8 .....	33	.....	.....	3	10 ..	13	5,650	200	40	6	1
Truck company—											
A .....	102	.....	.....	2	.....	1	.....	.....	1,428	3	.....
B .....	60	1	.....	3	.....	8	.....	.....	833	20	.....
C .....	55	.....	.....	3	.....	2	.....	.....	690	1	.....

*Total number of alarms, etc., during the year ending June 30, 1892.*

Responded to:

Fire alarms .....	218
Local alarms .....	182
Hose laid .....	90,550 feet.
Ladders raised .....	3,477 do.
Times extinguishers used .....	99
Transfers .....	4
Engines worked .....	140 40

*Description of steam fire-engines and trucks.*

Engines.	Style of engine.	Class.	Built by—	Placed in service.	Weight as drawn to fire.	Cylinder.	Pump.	Gallons per minute.
					<i>Pounds.</i>			
No. 1 .....	Double upright crane-neck, piston.	Second	Amoskeag Co.	Dec. 9, 1886	8,200	6½ by 8	4½	700
No. 2 .....	Upright crane-neck, double-pump piston.	First	Clapp & Jones	Dec. 16, 1891	8,975	9 by 8	5½ by 8	1,000
No. 3 .....	Crane-neck, double piston.	Third	.....do .....	Nov. 16, 1889	7,060	7 by 7	4½ by 7	600
No. 4 .....	Crane-neck, rotary.	.....do .....	Silsby Manufacturing Co.	Sept. 9, 1879	7,250	11 by 5½	4½	600
No. 5 .....	Single horizontal piston.	Fourth	Clapp & Jones	Nov. 17, 1883	6,200	8 by 8	4½ by 8	450
No. 6 .....	Double pump, upright crane-neck piston.	Second	.....do .....	Nov. 18, 1889	7,940	8½ by 7	5 by 7	700

*Description of steam fire-engines and trucks—Continued.*

Engines.	Style of engine.	Class.	Built by—	Placed in service.	Weight as drawn to fire.	Cylinder.	Pump.	Gallons per minute.
No. 7.....	Upright crane-neck double-pump piston.	Second	Clapp & Jones	Oct. 30, 1888	<i>Pounds.</i> 8,005	8½ by 7	5 by 7	700
No. 8.....	Single horizontal piston.	Fourth	do .....	Nov. 25, 1884	5,938	8	4½	450
Reserve 2..	Double horizontal piston, straight frame.	First	do .....	June 24, 1879	8,700	8 by 8	4½	700
Reserve 7..	Single horizontal piston.	Fourth	do .....	Jan. 17, 1885	6,045	8 by 8	4½	450

Trucks.	Ladders.		Built by—	Placed in service.	Weight as drawn to fires.
	<i>No.</i>	<i>Feet.</i>			<i>Pounds.</i>
A.....	13	331	La France Fire Engine Co .....	July 1, 1891	9,000
B.....	12	304	Babcock Manufacturing Co .....	Mar. 19, 1877	9,000
C.....	13	343	La France Fire Engine Co.....	Sept. 6, 1891	9,800
Reserve A.....	12	244	Buckley & Merritt.....	Feb. 21, 1879	8,855

*Location of engine and truck houses.*

Companies.	Location.
<b>Engine companies—</b>	
No. 1.....	K street, between Sixteenth and Seventeenth streets NW.
No. 2.....	D street, between Twelfth and Thirteenth streets NW.
No. 3.....	Delaware avenue and C street NE.
No. 4.....	Virginia avenue, between Four-and-a-half and Sixth streets SW.
No. 5.....	M street, between Thirty-second and Potomac streets, West Washington.
No. 6.....	Massachusetts avenue, between Fourth and Fifth streets NW.
No. 7.....	R street, between Ninth and Tenth streets NW.
No. 8.....	North Carolina avenue, between Sixth and Seventh streets SE.
<b>Truck companies—</b>	
A.....	North Capitol street, between B and C streets NE.
B.....	New Hampshire avenue and M street NW.
C.....	Ohio avenue and Fourteenth street NW.

**EXPENDITURES.**

The expenditures for the department, as per books of the auditor of the District of Columbia, for the year ending June 30, 1892, were as follows:

Salaries .....	\$109,195.16
Repairs of engine houses .....	2,996.98
Repairs to apparatus .....	2,814.13
Purchase of hose .....	3,000.00
Purchase of horses .....	3,580.00
Fuel .....	1,848.60
Forage .....	5,500.00
Contingent expenses .....	7,701.53
Exchanging engine .....	3,900.00
Addition to No. 8 engine house .....	786.59
<b>Total.....</b>	<b>141,322.99</b>

*Salaries of officers and employés.*

Officers and employés.	No.	Salary per annum.	Officers and employés.	No.	Salary per annum.
Chief engineer .....	1	\$1,800	Firemen.....	8	\$840
Assistant chief engineers.....	2	1,200	Hostlers .....	12	840
Fire marshal .....	1	1,000	Privates.....	76	800
Clerk.....	1	900	Watchmen .....	6	600
Foremen .....	11	1,000	Veterinary surgeon .....	1	400
Engineers of steamers .....	8	1,000			
Tillermen .....	3	840	Total.....	130	.....

**FIRE-PLUGS.**

The necessity of more fire-plugs can not be overestimated. With the water permeating every section of the entire city, and an adequate number of fire-plugs, comparative safety would be insured and many serious conflagrations avoided. The vast area of the city demands immediate attention to the matter. In the rural districts fire-plugs are almost unknown, yet the residents there expect in case of need the assistance of the department. The total number of fire-plugs in the District at present is 1,259, which is insufficient for protection from fire.

I respectfully recommend that the addition of at least 200 is necessary, they being located in suitable places, as our lead of hose in the heart of the city on an average is about 700 feet.

*Casualties.*

Companies.	Position.	Name.	Date.	Box.	Days off duty.	Injury.
Engine company—			1891.			
No. 3 .....	Assistant foreman.	T. B. McNamee	Dec. 19	612	.....	Arm and hands burned.
No. 6.....	do .....	A. A. Brown..	Nov. 9	16	36	Mashed finger.
No. 6.....	Private.....	G. W. Tenley	1892. June 28	152	3	Cut in eye by explosion.
No. 7.....	do .....	A. L. Grimm..	Mar. 15	731	5	Back hurt falling from ladder.
No. 8.....	do .....	John Lynch ..	1891. Nov. 2	524	16	Cut in the head.
No. 8.....	do .....	do .....	1892. June 25	62	5	Cut in the leg.
Truck company—			1891.			
B .....	do .....	G. H. Giles....	Sept. 4	.....	10	Kicked by horse in quarters.
B .....	Assistant foreman.	T. Donohue...	1892. Feb. 17	.....	81	Rope of fire escape broke while drilling; sprained leg.
B .....	Private.....	W. H. J. Bradekamp.	May 8	.....	24	Knee crushed between truck and door of the truck house.
C .....	do .....	J. A. Sweeney	1891. Dec. 19	.....	2	Sprained ankle on sliding pole.



# 132 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

List of alarms of fire from 1880 to 1892; number of buildings each year; population in 1880, 1890, and 1892.

Year.	Alarms of fire.	Buildings.	Population.
1880 .....	109	30,474	177,638
1881 .....	97		
1882 .....	125		
1883 .....	152		
1884 .....	146		
1885 .....	185		
1886 .....	169		
1887 .....	186		
1888 .....	174		
1889 .....	168	41,517	
1890 .....	207	43,969	229,796
1891 .....	191	46,274	
1892 .....	218	49,421	258,431
Increase in 12 years .....		18,947	80,793

## Members of the department.

### ENGINE COMPANY NO. 1.

Name.	When appointed.	Position.	Age.	Occupation.	Residence.
Chas. S. Boss .....	Sept. 28, 1877	Foreman .....	41	Laborer .....	1926 K street NW.
John A. Walsh .....	July 20, 1881	Assistant foreman .....	33	Brickmaker .....	405 Second street NE.
Wm. A. Shedd .....	Dec. 8, 1873	Engineer .....	50	Machinist .....	2204 I street NW.
Wm. French .....	July 16, 1870	Fireman .....	49	Laborer .....	1432 L street NW.
Sam'l E. Edwards .....	Sept. 19, 1874	Hostler .....	45	Blacksmith .....	2202 I street NW.
Sam'l E. Mastin .....	Apr. 1, 1887	Private .....	36	Plasterer .....	808 Eighteenth street NW
Wm. M. Caton .....	Feb. 1, 1888	do .....	37	Laborer .....	2439 I street NW.
Wm. G. Alber .....	Aug. 1, 1888	do .....	37	Lineman .....	1114 Nineteenth street NW.
J. J. Coyle .....	Oct. 17, 1891	do .....	24	Driver .....	1914 K street NW.
M. R. Fenton .....	May 1, 1892	do .....	21	Blacksmith .....	1305 C street SW.
John T. Hyland .....	Sept. 30, 1880	Watchman .....	34	Laborer .....	1240 New Hampshire avenue NW.

### ENGINE COMPANY NO. 2.

John F. Maddox .....	Dec. 9, 1876	Foreman .....	55	Wheelwright .....	1202 E street NW.
J. G. Willson .....	Apr. 16, 1890	Assistant foreman .....	34	Farmer .....	745 Seventh street SE.
James Moriarty .....	Oct. 4, 1870	Engineer .....	54	Machinist .....	2113 K street NW.
Thomas M. Robinson .....	July 16, 1886	Fireman .....	31	do .....	1610 Fifth street NW.
F. P. Jacobs .....	Nov. 2, 1882	Hostler .....	40	Driver .....	1430 Ohio avenue NW.
Conrad Reinhard .....	Oct. 7, 1887	Private .....	29	Steam fitter .....	338 K street NW.
Frederick Brill .....	Aug. 13, 1890	do .....	25	Laborer .....	614 Maryland avenue SW.
Emmet Donaldson .....	do .....	do .....	28	do .....	2309 R street NW.
J. D. P. Snyder .....	June 1, 1891	do .....	33	do .....	1008 Sixth SW.
John Carrington .....	June 13, 1892	do .....	23	do .....	1202 E street NW.

### ENGINE COMPANY NO. 3.

Joseph O. Guy .....	Jan. 15, 1879	Foreman .....	43	Carpenter .....	744 Seventh street SE.
T. B. McNamee .....	Mar. 17, 1889	Assistant foreman .....	36	Stone cutter .....	719 North Capitol street.
Wm. E. Leeman .....	Sept. 3, 1874	Engineer .....	55	Machinist .....	507 D street SE.
James Creamer .....	Nov. 1, 1878	Fireman .....	36	Laborer .....	141 D street NE.
Michael Kane .....	Aug. 1, 1867	Hostler .....	44	Hostler .....	209 B street NE.
James Frazier .....	Jan. 4, 1869	Private .....	51	Mariner .....	1001 Maryland avenue NE.
J. P. Kane .....	Oct. 15, 1877	do .....	43	Plasterer .....	811 C street NE.
Conrad Wetzel .....	Nov. 9, 1888	do .....	37	Engineer .....	501 Third street SW.
John Smith .....	Aug. 3, 1888	do .....	31	Baker .....	23 Myrtle street NE.
Frank Wagner .....	Aug. 23, 1891	do .....	22	Driver .....	1903 Eighth street NW.
James Lowe .....	Aug. 9, 1864	Watchman .....	70	Carpenter .....	63 H street NW.

*Members of the department—Continued.*

## ENGINE COMPANY NO. 4.

Name.	When appointed.	Position.	Age.	Occupation.	Residence.
Wm. T. Sorrell .....	Jan. 19, 1870	Foreman.....	57	Mariner .....	460 Virginia avenue SW.
James Keliher.....	Dec. 10, 1885	Assistant foreman.	34	Carpenter .....	462 Virginia avenue SW.
F. Donnelly.....	July 16, 1870	Engineer .....	47	Pattern-maker..	480 E street SW.
H. Lambert.....	July 15, 1883	Fireman .....	35	Mariner .....	343 D street SW.
John Waldron.....	Feb. 6, 1875	Hostler.....	47	Laborer.....	317 D street SW.
Rob't Dickson.....	Mar. 13, 1875	Private.....	37	do .....	477 Washington street NW.
Chas. Burke.....	Jan. 1, 1882	do .....	40	do .....	614 Sixth street SW.
Chas. R. Kuhns.....	May 17, 1887	do .....	28	Butcher .....	323 Virginia avenue SW
J. D. O'Connor.....	Aug. 1, 1888	do .....	33	Brass-molder...	470 H street SW.
F. W. Raitz.....	Mar. 22, 1884	do .....	37	Seaman.....	737 Tenth street SE.
Frank Mulhall.....	Mar. 1, 1888	Watchman detailed at District building.	33	Painter.....	211 Virginia avenue SE.

## ENGINE COMPANY NO. 5.

J. D. Kurtz .....	Jan. 2, 1879	Foreman.....	39	Carpenter .....	1687 Valley street NW.
J. T. Young.....	Nov. 1, 1883	Assistant foreman.	41	Miller .....	3804 O street NW.
J. D. Angell.....	Oct. 1, 1869	Engineer .....	44	Engineer .....	1071 Thirty-second street NW.
J. F. Reynolds.....	Sept. 21, 1888	Fireman .....	32	Fireman .....	1215 Twenty-ninth street NW.
J. H. Mahorney.....	Oct. 1, 1869	Hostler.....	51	Carpenter .....	3221 P street NW.
R. R. Allen.....	Feb. 9, 1885	Private.....	32	Laborer.....	1241 Potomac street NW.
C. E. Harper.....	Aug. 1, 1888	do .....	33	Plumber.....	3337 P street NW.
W. T. Mahorney.....	Feb. 22, 1878	do .....	44	Laborer.....	1520 Thirty-third street NW
D. O'Connor.....	Aug. 13, 1890	do .....	24	Butcher.....	1430 Thirty-sixth street NW
G. F. Burga.....	June 1, 1892	do .....	21	Steam-fitter....	1414 E street NW.

## ENGINE COMPANY NO. 6.

J. N. Leman.....	Apr. 6, 1876	Foreman.....	36	Blacksmith.....	811 Fourth street NW.
A. A. Brown.....	July 1, 1885	Assistant foreman.	40	Painter .....	206 F street NE.
T. J. Martin.....	Dec. 13, 1873	Engineer .....	53	Blacksmith.....	501 I street NW.
F. C. Dodge.....	Aug. 1, 1888	Fireman .....	31	Pilot.....	461 I street NW.
J. O'Leary.....	Sept. 20, 1873	Hostler.....	41	Blacksmith.....	35 Massachusetts avenue NW.
H. W. Wright.....	Jan. 1, 1879	Private.....	41	Carpenter .....	312 M street NW.
C. G. O'Brien.....	Sept. 18, 1887	do .....	30	Painter .....	126 G street NE.
G. W. Tenley.....	Apr. 12, 1884	do .....	33	Laborer.....	409 Massachusetts avenue NW.
Jas. Gaghan.....	Aug. 13, 1890	do .....	29	Ironworker.....	40 F street NW.
C. E. Schrom.....	Mar. 8, 1892	do .....	22	Track-layer....	2411 P street NW.
B. H. Bryan.....	Apr. 1, 1892	do .....	28	Seaman.....	414 A street SE.
Wm. Kirkpatrick...	Nov. 22, 1873	Watchman.....	45	Carpenter .....	335 I street NE.

## ENGINE COMPANY NO. 7.

Frank J. Wagner....	Apr. 1, 1879	Foreman.....	49	Butcher .....	1903 Eighth street NW.
Timothy O'Brien....	June 4, 1886	Assistant foreman.	33	Laborer .....	48 Massachusetts avenue NW.
Patrick J. Carroll....	Jan. 2, 1879	Engineer .....	39	Blacksmith.....	724 Fourth street NW.
George G. Warren....	June 5, 1883	Hostler.....	34	Driver.....	1736 Tenth street NW.
James H. Dean.....	Apr. 1, 1888	Fireman.....	36	Boiler-maker...	912 Florida avenue NW.
William H. Webb....	Sept. 7, 1885	Private.....	29	Laborer .....	918 Florida avenue NW.
William P. Cady....	Sept. 14, 1886	do .....	27	do .....	902 French street NW.
Patrick R. Noone....	Oct. 12, 1888	do .....	31	Painter.....	1739 Eighth street NW.
John L. Martin.....	July 1, 1888	do .....	20	Laborer .....	501 I street NW.
August L. Grimm....	Nov. 25, 1888	do .....	26	Jeweler.....	1809 Twelfth street NW.

# 134 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Members of the department—Continued,

## ENGINE COMPANY NO. 8.

Name.	When appointed.	Position.	Age.	Occupation.	Residence.
Francis Lewis .....	Oct. 3, 1864	Foreman.....	51	Painter .....	314 Maryland avenue NE.
William Luskey.....	Jan. 3, 1879	Assistant foreman.	43	Laborer.....	217 Sixth street SE.
William Ricks.....	July 1, 1875	Engineer .....	40	Engineer.....	642 K street NE.
George Bohlayer.....	Sept. 8, 1882	Fireman .....	33	Painter .....	622 E street SE.
James Nolan .....	Jan. 3, 1879	Hostler.....	41	Plasterer.....	222 Seventh street SE.
P. W. Nicholson .....	June 1, 1886	Private.....	30	Paper-hanger ..	721 Thirteenth street SE.
William W. White ..	Feb. 26, 1873	...do .....	50	Brickmaker ....	417 Fifth street SE.
George Maguire .....	Nov. 29, 1884	...do .....	39	Fireman .....	1011 South Capitol street.
John Lynch .....	Sept. 1, 1883	...do .....	33	Laborer.....	27 G street NE.
Arthur Donaldson...	July 1, 1885	...do .....	30	...do .....	666 B street SE.
Harry Thomas .....	June 12, 1883	Watchman ....	34	...do .....	730 Third street NE.

## TRUCK COMPANY A.

Samuel R. Henry ....	Jan. 2, 1879	Foreman.....	42	Laborer .....	125 E street SE.
Joseph Mulhall.....	July 15, 1884	Assistant foreman.	39	Painter .....	407 Fifth street SE.
Alex. Savoy.....	Feb. 1, 1872	Hostler.....	48	Barber.....	412 First street SW.
James E. Hooper.....	June 1, 1887	Private.....	30	Laborer .....	403 G street NE.
James T. Rossiter....	July 1, 1889	...do .....	27	Carpenter .....	317 B street NE.
George R. Ash.....	...do .....	...do .....	30	Laborer.....	816 B street SE.
George W. Neale.....	Aug. 14, 1891	...do .....	25	...do .....	111 D street SW.
James J. Taylor.....	Aug. 22, 1891	...do .....	24	...do .....	225 North Capitol street.
Chas. H. King.....	Nov. 8, 1891	...do .....	28	Bricklayer.....	209 E street NE.
H. R. Warren.....	June 1, 1892	...do .....	24	Laborer.....	1726 Tenth street NW.
Chas. W. Hopkins .....	...do .....	...do .....	26	...do .....	830 Delaware avenue NE.
Chas. Mead .....	Apr. 28, 1874	...do .....	51	Carpenter .....	477 I street NW.

## TRUCK COMPANY B.

John Sherman .....	Jan. 2, 1879	Foreman.....	47	Laborer.....	1831 R street NW.
Timothy Donohue ...	Nov. 13, 1884	Assistant foreman.	35	Stonecutter ....	1220 Twenty-fourth street NW.
Daniel Williams .....	Feb. 1, 1872	Hostler.....	51	Laborer.....	1212 Twenty-fourth street NW.
J. J. Cannon .....	May 1, 1883	Private.....	36	...do .....	1240 New Hampshire avenue NW.
Thos. P. Purcell.....	Mar. 23, 1886	...do .....	34	Stonecutter ....	2319 L street NW.
Thos. A. Griffin.....	Aug. 1, 1888	...do .....	32	Miner .....	921 Twenty-fifth street NW.
C. L. Farr.....	Feb. 1, 1889	...do .....	34	Laborer .....	828 Twenty-third street NW.
G. H. Giles.....	Aug. 1, 1888	...do .....	37	Molder .....	2819 M street NW.
Jacob Oliver.....	Dec. 11, 1890	...do .....	36	Laborer.....	1742 Tenth street NW.
Wm. H. J. Bradekamp.	July 19, 1884	...do .....	38	...do .....	1516 Twentieth street NW.
Wm. A. Dixon .....	Dec. 3, 1891	...do .....	29	...do .....	1210 Thirtieth street NW.
John Walker .....	Feb. 1, 1872	Watchman ....	55	Bricklayer.....	3271 Prospect avenue NW.

## TRUCK COMPANY C.

A. J. Sullivan.....	Jan. 2, 1879	Foreman.....	39	Blacksmith.....	3211 R street NW.
M. J. Niland .....	July 1, 1885	Assistant foreman.	29	Plumber.....	1148 Twentieth street NW.
P. Mahaney.....	Dec. 16, 1885	Hostler.....	34	Miner .....	1824 Florida avenue NW.
Wm. Doleman .....	July 1, 1885	...do .....	34	Laborer.....	1235 C street SW.
P. D. Breen .....	Oct. 9, 1889	Private.....	28	Lineman.....	35 Jackson street NE.
Zedock Williams .....	Aug. 13, 1890	...do .....	24	Brickmaker.....	1218 G street SE.
C. A. Kreamer .....	...do .....	...do .....	35	Butcher .....	1211 Twenty-ninth street NW.
J. J. Sullivan .....	...do .....	...do .....	35	Laborer.....	2412 N street NW.
B. Buscher.....	...do .....	...do .....	24	...do .....	403 G street NE.
S. G. Dixon .....	...do .....	...do .....	35	Mariner .....	1037 Thirtieth street NW.
W. B. Handy.....	Apr. 1, 1891	...do .....	32	Plumber.....	33 Virginia avenue SW.
J. A. Sweeney .....	Aug. 13, 1890	...do .....	30	Driver.....	117 Cabbage alley NE.
W. E. Jones.....	Oct. 1, 1891	...do .....	29	Mariner .....	519 Sixth street SE.
J. Callahan .....	June 1, 1892	...do .....	32	Laborer.....	3407 S street NW.



Annexed will be found a statement of the fire marshal, William O. Drew, in relation to storage and grade of illuminating oils, etc.; also detailed statement of fires, losses, and insurance for the year ending June 30, 1892.

There were 218 alarms for fire and 182 local or still alarms. The estimated loss entailed was \$162,086, covered by an insurance of \$108,856, against a loss of \$165,803, covered by an insurance of \$84,993 of the previous year.

In conclusion, I beg to return thanks to the Commissioners for the uniform courtesy at all times extended me; also to my two assistant chiefs and the officers and men under their command; to the major, officers, and members of the police force; to the superintendent of the fire alarm, etc., and the operators connected with the office, all of whom have rendered valuable service, making it easier for me to fulfill the various and important duties intrusted to me.

Very respectfully,

JOSEPH PARRIS,  
*Chief Engineer, Fire Department.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

# ESTIMATES FOR THE FIRE DEPARTMENT FOR FISCAL YEAR ENDING JUNE 30, 1894.

WASHINGTON, *July, 1892.*

GENTLEMEN: I have the honor to submit my estimates for the expenses of the fire department for fiscal year ending June 30, 1894:

	Amount of appropriation for fiscal year ending June 30, 1893.	Amount of appropriation asked for fiscal year ending June 30, 1894.
	<i>Each.</i>	<i>Each.</i>
Chief engineer.....	\$1,800	\$2,500
Two assistant chief engineers.....	\$1,200.... 2,400	\$1,500.... 3,000
One fire marshal.....	1,000	1,200
One clerk.....	900	1,200
Twelve foremen.....	1,000.... 12,000	1,200.... 14,400
Nine engineers.....	1,000.... 9,000	1,150.... 10,350
Eight firemen (should be nine).....	840.... 6,720	930.... 7,440
Three tillermen.....	840.... 2,520	930.... 2,790
Thirteen hostlers.....	840.... 10,920	930.... 12,090
Eighty-two privates.....	800.... 65,600	900.... 73,800
Six watchmen.....	600.... 3,600	720.... 4,320
One veterinary surgeon.....	400	1,000
<b>Total.....</b>	<b>116,860</b>	<b>134,090</b>
Twelve assistant foremen, \$960 each.....		\$11,560
Twelve hostlers, \$930 each.....		11,160
One machinist in charge of repairs to apparatus.....		1,200
Six watchmen, \$720 each.....		4,320
One fireman for new company.....		930
<b>Total.....</b>		<b>29,170</b>
Repairs to engine houses.....		4,500
Repairs to apparatus and new appliances.....		3,000
Purchase of hose.....		4,000
Fuel.....		2,750
Horses.....		4,000
Forage.....		6,000
Contingent expenses, including horseshoeing, furniture, fixtures, washing, oil, medical and stable supplies, harness, blacksmithing, labor, gas, and other necessary items.....		8,500
Two new engine houses for Nos. 2 and 4 companies.....		24,000
Furniture for new No. 9 engine house.....		1,000
<b>Total.....</b>		<b>57,750</b>

# 136 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Houses, lots, and furniture for one new engine and one truck company .....	\$11,000
One new engine.....	4,500
One new hose carriage .....	900
One new aerial turntable truck .....	3,500
Two foremen, \$1,200 each .....	2,400
One engineer .....	1,150
Two assistant foremen, \$960 each .....	1,920
One fireman.....	930
One tillerman .....	930
Two hostlers, \$930 each .....	1,860
Thirteen privates, \$900 each .....	11,700
Seven horses, at \$275 each.....	1,925
<b>Total.....</b>	<b>75,715</b>
One aerial turntable truck, to replace old-style truck .....	3,500
Seven disabled men, at 600 each per annum .....	4,200
Three widows of firemen, at \$360 per annum .....	1,080
<b>Total .....</b>	<b>5,280</b>
Hose carriage for new company .....	900

The first item in this estimate is the pay of the department. In the first column is the pay as at present; in the next is the amount I ask as an increase of pay, that the members may receive as much as other classes of employes in accordance with the duties performed. If you will consider the matter you will find that the services of firemen are not paid for in the same proportion as employes for a like class of work, not that I think others receive too much, but that the firemen receive too little. The increase would amount to \$17,220 per annum, divided amongst 139 men, who are always ready to guard the property of the citizens, not only by day but by night.

To place the department on a good footing each company should have 12 men. I have estimated for 12 assistant formen at a compensation of \$960 per annum and 12 hostlers at \$930 per annum. Privates have been detailed to fill these places, with all the extra labor and responsibilities without any extra compensation. Privates would be promoted to these places, and new men appointed to fill the vacancies made by these promotions, thus giving the required number to each company.

In asking for a machinist and engineer, under the direction of the chief of department, at a salary of \$1,200 per annum, I feel confident that the saving to the apparatus would more than justify the outlay.

I respectfully recommend that 6 additional watchmen be provided for, in addition to the 6 already employed. There are 6 privates in the department partly disabled from long service, and it is desirable for the efficiency of the service that strong, active men should take their places, and they be appointed to the above positions as a recognition of past services.

In estimating for new houses for engine companies Nos. 2 and 4, I do so in the interest of the health of the men and as a saving to the District, as the present old buildings are not fit for habitation and are of such nature that would hardly be allowed to exist in any but a public building. I earnestly request that you give this your favorable consideration, as I deem it of the utmost importance.

In estimating for one engine and one truck company, the engine company would be placed in the northeastern section, and the truck company north of New York avenue, between New Jersey avenue and Seventh street, NW. The primary object with all well-regulated fire departments is to act with dispatch. A minute gained in reaching and beginning the fight of subduing an incipient fire frequently saves thousands of dollars that would be lost if the flames gained a headway. Dispatch in its fullest sense can not be obtained by the engines being placed so far apart as at present. Last year I asked for three com-



panies and you allowed me one; I therefore request that you favorably consider my appeal.

I have estimated for a new truck to replace the old truck now in service at Truck B. The new aerial trucks are far superior to the old style. The saving of time in subduing fires and saving life is often worth more than the price of a new truck.

I have on several occasions commented upon the scope and significance of the, firemen's relief fund. In importance of the subject to which it relates, as well as the possibilities which it offers for wise and beneficial legislation, it takes rank before all other subjects. The present law is so defective that the payment to pensioners already on the roll exceeds the income by \$42 per month, and it was intended that the \$1 deducted from the monthly pay of each man should go towards creating a reserve fund for the benefit of any member who may be disabled. I have therefore estimated for seven disabled men at \$600 per annum and three widows of firemen at \$360. Two disabled men and the widows of the firemen are already on the roll drawing their pension from the relief fund. I would therefore ask that an annual appropriation be made, in accordance with the figures presented.

I have estimated for one fireman for the new company. Congress neglected to provide for a fireman when appropriating for a new company, thus leaving me short one man in the organization of this new company. As it is of great importance to have this company equal to the others in the department, I would ask that you favorably consider the matter; they also left out the furniture for the new engine house, and as the men are obliged to stay at the house and sleep there, it is necessary that it should be furnished comfortably. I have included \$1,000 for this item.

Very respectfully,

JOSEPH PARRIS,  
*Chief Engineer.*

To the COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

#### FIRE MARSHAL'S REPORT.

WASHINGTON, D. C., *September 30, 1892.*

DEAR SIR: I have the honor to transmit the following report of the transactions of this office for the fiscal year ending June 30, 1892.

During the year I visited and inspected the scene of 218 fires for which alarms had been rung, entailing a loss of \$154,146, with an insurance on the same of \$106,586; also the scene of 182 local fires for which no alarm was sounded, causing a loss of \$7,940, with an insurance of \$2,270. Total loss, \$162,086; insurance, \$108,856.

A list of the causes for said fires, with a detailed statement of the loss and insurance, will be found in this report; also number of business places visited, and samples of kerosene oil collected and tested, and the number of buildings visited and inspected which were reported in an unsafe condition from cause of fire.

During the year I visited 536 stores where illuminating oil was kept for sale, and inspected samples of kerosene from each place. In my inspections for the past year I found the oil to be of good quality; in no instance did I find a sample to be below the requirements. As compared with former years the improvement in the quality of kerosene oil in the District of Columbia is all that could be expected.

Complaint was made to this office during the past year of 11 different buildings being in an unsafe condition from cause of fire, by stove-



# 138 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

pipes, defective flues, and other causes, all of which were attended to and put in a safe condition.

Following will be found the number of fires and alarms from July 1, 1891, to June 30, 1892, with the causes and kind of buildings; also table showing the number of different causes and how occupied.

I take pleasure in stating that the efficiency of the department for the past year speaks well for its management, as with 69 more fires the loss is \$3,717, less than for the year ending June 30, 1891.

Most respectfully, your obedient servant,

WM. O. DREW,  
Fire Marshal.

JOSEPH PARRIS, Esq.,  
Chief Engineer District of Columbia Fire Department.

## A.—Statement of number of fires, loss, and insurance for the year ending June 30, 1892.

Month.	Fires for which alarms were given.			Local or silent alarms.		
	No. of fires.	Loss.	Insurance.	No. of fires.	Loss.	Insurance.
1891.						
July .....	19	\$1,040	\$730	9	\$1,150	\$1,000
August .....	8	805	780	6	60	10
September .....	13	51,345	35,730	5	105	.....
October .....	23	3,870	2,205	17	120	115
November .....	25	3,100	2,025	26	230	115
December .....	19	6,855	5,750	23	360	120
1892.						
January .....	17	24,780	22,865	20	185	70
February .....	17	3,065	2,815	15	105	80
March .....	11	4,490	3,435	15	1,045	240
April .....	15	32,979	18,604	9	450	100
May .....	24	3,280	525	17	3,730	210
June .....	27	18,537	11,122	20	400	260
Total .....	218	154,146	106,586	182	7,940	2,270

## B.—Record showing cause of fires and alarms for the year ending June 30, 1892.

Cause.	No.	Cause.	No.
Explosion of gasoline stove .....	28	Overheated smokestack .....	1
Spontaneous combustion .....	9	Defective bake oven .....	1
Unknown .....	55	Rekindling of fire .....	1
False alarm .....	31	Skyrocket .....	1
Overheated oven .....	1	Firecrackers .....	2
Children playing with matches .....	14	Burning rags .....	1
Gas jet .....	7	Heat pipe .....	1
Lamp explosion .....	5	Upsetting stove .....	11
Grease on stove .....	2	Upsetting lamp .....	6
Using gasoline near fire .....	1	Explosion of gasoline can .....	1
Escaping gas .....	3	Electric-light wire .....	5
Stove .....	25	Furnace smoke pipe .....	2
Accident .....	25	Explosion of benzine .....	2
Sparks from smokestack .....	2	Hot ashes .....	12
Incendiary .....	24	Carelessness .....	2
Sparks from locomotive engine .....	2	Stovepipe .....	5
Furnace .....	5	Falling lamp .....	1
Chimney .....	45	Defective flue .....	18
Dropping lamp .....	3	Lamp .....	1
Burning rubbish .....	4	Slaking lime .....	2
Explosion of coal oil stove .....	1	Open grate .....	1
Gas machine .....	1	Cyclone .....	1
Cigar stump .....	5	Collapse of building .....	1
Lightning .....	1	Smoking pipe .....	1
Blacksmiths' forge .....	1	Bonfire .....	1
Smoky flue .....	2	Defective hearth .....	4
Boiler explosion .....	2		

## C.—Number and kind of buildings where the fires originated.

Buildings.	Frame.	Brick.	Total.	Buildings.	Frame.	Brick.	Total.
Dwelling .....	78	101	179	Milk dairy .....	1	.....	1
Laundry .....	.....	2	2	Planing mill .....	.....	2	2
Stable .....	16	5	21	Printing office .....	4	3	7
Restaurant .....	2	4	6	Coachmaker .....	.....	3	3
Office .....	2	7	9	Drug store .....	.....	3	3
Music store .....	.....	1	1	Institute .....	.....	1	1
Grocery .....	2	8	10	Crockery store .....	.....	1	1
Dining saloon .....	1	5	6	Dyehouse .....	1	2	3
Tailor shop .....	1	3	4	Music hall .....	.....	1	1
Freight car .....	2	.....	2	Woman's Home .....	.....	1	1
Steamboat .....	4	.....	4	Gas house .....	.....	1	1
Barber shop .....	3	.....	3	Hotel .....	.....	5	5
Fruit store .....	1	1	2	Shooting gallery .....	.....	1	1
Wood shed .....	15	.....	15	Carriage house .....	.....	1	1
Junk store .....	1	.....	1	Hardware store .....	.....	1	1
Feed store .....	.....	1	1	Oyster house .....	1	.....	1
Bicycle shop .....	1	1	2	Palace car .....	1	.....	1
Church .....	1	2	3	Milliner's store .....	.....	1	1
Tool house .....	1	.....	1	Florist .....	.....	1	1
Cook shop .....	1	.....	1	Dancing pavilion .....	1	.....	1
Paint store .....	.....	2	2	Clothing store .....	.....	1	1
Cigar store .....	1	.....	1	Tin and stove store .....	1	1	2
Ice house .....	.....	1	1	Fancy goods store .....	.....	1	1
Warehouse .....	3	3	6	Public hall .....	.....	1	1
Concrete works .....	1	.....	1	Bookbindery .....	.....	1	1
Lodge room .....	.....	1	1	Smokehouse .....	.....	1	1
Undertaker .....	1	.....	1	Bakery .....	.....	1	1
Cabinetmaker .....	.....	1	1	Brass foundry .....	.....	1	1
Lithographer .....	.....	1	1	Kindling-wood mill .....	1	.....	1
Plumber's shop .....	1	.....	1	Photograph gallery .....	.....	1	1
Publishing house .....	.....	1	1	Clubhouse .....	.....	1	1
Optician .....	.....	1	1	Oil house .....	.....	1	1

FIRE MARSHAL'S RECORD OF FIRES, DISTRICT OF COLUMBIA.

JULY, 1891.

No. of fire.	Date.	Box.	Hour.		Location.	Owner or occupant.	How occupied.	Style of building.	Cause.	Dam- age.	Insur- ance.
			A. M.	P. M.							
1	4	216		12.05	1210 N st. NW	R. Goldsmidt	Dwelling	Brick	Chimney.		
2	4	216		9.08	918 N st. NW	Alex. Parker	do	do	Firecracker		
3	4	17		9.38	344 Pennsylvania ave. NW	H. M. Dexter	Laundry	do	Skyrocket	\$10	\$10
4	4	123		9.55	624 5th st. NW	T. S. Clark	Dwelling	do	Firecracker		
5	5	12	11.33						False alarm		
6	6	41	1.43		477 C st. SW	S. Alexander	Stable	Frame	Unknown	300	300
7	11	147		2.54	1525 I st. NW	O. B. Baker	Dwelling	Brick	Explosion of gasoline stove	75	
8	11	328		4.40	1134 26th st. NW	J. C. Night	Restaurant	do	Accident.		
9	11	713		10.44	3414 T st. NW	D. M. Hess	Dwelling	Frame	Unknown	100	
10	11	713		11.37	do	do	do	do	Rekindling of above fire.		
11	14	131		5.20	512 9th st. NW	U. S. Government	Census office.	Brick	Electric-light wire		
12	15	21		6.09	211 L st. NW	Lucy Scott	Dwelling	do	Accident.	50	
13	16	123			719 7th st. NW	Waldecker & Co.	Music store	do	Unknown		
14	16	53	6.03		136 C st. SE	C. L. Wagner	Grocery	do	Accident.		
15	17	42	10.45		214 E st. SW	P. Sullivan	do	Frame	Unknown	400	400
16	17	149		7.23	Alley bet. 15th and 16th and L and M sts. NW.	S. Williams	Dwelling	do	Lamp explosion.	5	
17	24	214		8.35					False alarm		
18	29	131	6.11		606 9th st. NW	S. H. Martin	Dining rooms	Brick	Defective oven		
19	29	241	11.15		1451 P st. NW	A. Hasse	Tailor shop	Frame	Accident	100	20
										1,040	730

Local or silent alarms.

No.	Date.	Box.	Hour.		Location.	Owner or occupant.	How occupied.	Style of building.	Cause.	Dam- age.	Insur- ance.
			A. M.	P. M.							
1	2			1.03	Delaware ave. and 1st st. NW	B. & O. R. R. Co	Freight car	Frame	Slaking lime		
2	2			7.08	1610 8th st. NW	Samuel Crown	Dwelling	do	Chimney	\$150	
3	6			9.10	3300 M st. NW	R. Rowzer	do	Brick	Accident		
4	9			10.33	500 11th st. NW	Waple & Co	Grocery	do	Falling lamp	1,000	\$1,000
5	11			12.46	6th St Wharf SW	Seaboard & Coasting Co.	Steamboat	Frame	Overheated smokestack		
6	12			12.54	3067 M st. NW	Daniel Stewart	Barber shop	do	Defective flue		
7	13			4.05	1221 9th st. NW	E. C. Clark	Dwelling	do	Chimney		
8	17				Same as for box 42						
9	31		10.42		1210 Pennsylvania ave. NW	C. Pizelli	Fruit store	Brick	Lamp explosion		
				7.52						1,150	1,000











## NOVEMBER, 1891—Continued.

No. of fire.	Date.	Box.	Hour.	Location.	Owner or occupant.	How occupied.	Style of building.	Cause.	Dam- age.	Insur- ance.
23	27	237	A. M. 6.17	1620 12th st. NW	L. Thompson	Dwelling	Frame	Unknown	\$100	\$100
24	27	123	10.45	608 F st. NW	J. S. Tomlinson	Printing office	Brick	Gas jet	15	15
25	29	214	1.22	Florida ave., bet. 6th and 7th sts. NW.	Gurley Church Association.	Church	do	Smoke pipe	10	10
									3,100	2,025

## Local or silent alarms.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
12.07	7.20	11.59	5.55	5.41	4.38	5.02	9.35	6.49	9.07	8.15	2.44	2.55	5.21	1.01	1.00	5.09	6.48	12.34	7.48	5.06	5.55	4.38	1.06		
7th and F sts. NW	400 13th st. NW	943 L st. NW	401 G st. NW	205 G st. SW	730 New Jersey ave. NW	1357 E st. SE	448 Washington st. NW	1719 13th st. NW	510 B st. SE	44 st. and Indiana ave. SW	1000 New Hampshire ave. NW	701 North Capitol st. NE	420 Cedar st. NW	1319 18th st. NW	Georgetown College	322 E st. SW	3200 M st. NW	14th st. and Indiana ave. SW	1619 13th st. NW	1734 De Sales st. NW	1344 Riggs st. NW	16th bet. H and I sts. NW	1244 Pennsylvania ave. NW		
U. S. Government.	E. B. Coyatt	P. St. Angelo	J. C. Clark	Thos. Scott	E. M. Thorn	L. Ulrick	C. Wallace	Woman's Christian As- sociation.	E. S. Taylor	W. P. Wood	W. Payne	J. Raedy	N. Coley	R. J. Davenport	J. S. Order	J. C. Cox	W. M. Payne	G. W. Gray	S. P. Jackson	M. Garnett	P. H. White	R. O. Carlin			
Patent Office	Restaurant	Dwelling	do	do	Shed	Dwelling	do	Woman's Home	Dwelling	Planing-mill	Dwelling	Restaurant	Dwelling	do	Gas house	Dwelling	Eating saloon	Steamboat	Dwelling	do	Dwelling	Arno Hotel	Shooting gallery		
Stone	Brick	Brick	do	Frame	do	do	do	Brick	do	do	do	do	do	do	do	Frame	Brick	Brick	do	do	Brick	do	do		
Smoky flue	Cigar stump	False alarm	Explosion of gasoline can	Gas jet	Unknown	Child playing with matches	Defective flue	Chimney	Defective flue	Explosion of gasoline stove	Heat-pipe	Defective flue	Latrobe stove	Child playing with matches	Boiler explosion	Leaky gas-pipe	Chimney	Explosion of gasoline stove	Forge	Explosion of gasoline stove	Defective hearth	False alarm	Chimney	do	Stovepipe
								10				15	50		100				25					230	115

DECEMBER, 1891.

1	312		4.55	2135 F st. NW	T. J. Martin	Dwelling	Brick	Stove	\$10	\$10
2	526		12.21	117 5th st. SE	C. P. Saunders	do	do	Chimney		
3	129		7.56	426 9th st. NW	Thomas Jarvis	do	do	Unknown		
4	146	10.42						False alarm		
5	54	10.12		306 Virginia avn. SE	S. Thompkins	Dwelling	Brick	Child playing with matches		
6	45		11.38	1321 4½ st. SW	Thomas Downey	Stable	Frame	Incendiary	100	
7	14	2.20		201 Massachusetts ave. NW	W. H. Hamilton	do	do	do	100	
8	23		11.42	304 New York ave. NW	J. V. Edmonds	Grocery	Brick	Unknown	1,000	600
9	254		6.44	1805 R st. NW	H. Carter	Dwelling	Brick	Chimney	25	25
10	39	11.54		1717 L st. NW	A. Simmons	Laundry	Frame	Stove	1,000	600
11	141	1.10		464 C st. NW	W. E. Dyer	Carriage house	do	Incendiary		
12	54		1.49	321 I st. SE	F. Wilson	Stable	Frame	Boys playing with matches	5	
13	612		1.59	324 3d st. NE	M. Jackson	Dwelling	do	Stove	100	
14	243		8.21	1742 14th st. NW	Yost Hardware Co.	Hardware store	Brick	Unknown	2,000	2,000
15	45		4.10					False alarm		
16	38	1.39		1004 20th st. NW	M. S. Koonce	Dwelling	Frame	Incendiary		
17	52		6.47	221 East Capitol st. SE	H. M. Pierce	do	Brick	Unknown	2,500	2,500
18	71		9.24	3006 M st. NW	C. Fields	Oyster house	Frame	Fat on stove		
19	241		6.28	1407 P st. NW	J. S. Quander	Barber shop	do	Hot ashes	15	15
									6,855	5,750

## Local or silent alarms.

1	11.02			816 17th st. NW	Dr. Kerr	Dwelling	Brick	Chimney		\$10
2	10.01			1701 I st. NW	University Club	Clubhouse	do	Accident		
3	5.45		2.04	B. and O. R. R. depot	B. and O. R. R. Co.	Oil house	do	Sparks from locomotive		
4			10.25	13th st. extended				Burning brush		
5			8.51	923 1st st. SW	John Robinson	Dwelling	Brick	False alarm	5	
6	10.41			Same as for box 129				Chimney		
7			5.07	1347 Connecticut ave. NW	J. Robbins	Dwelling	Brick	Chimney		
8	11.10		7.02	1104 15th st. NW	R. J. Corcoran	do	do	Explosion of gasoline stove		
9			11.37	6th and H sts. NE	S. Hartie	Stable	Frame	Accident		
10				Same as for box 45						
11	2.15			Same as for box 14						
12	11.52			Same as for box 39						
13			10.08	519 7th st. SW	Fine Brothers	Wareroom	Frame	Unknown	5	
14				Alley bet. 14th and 15th and B and C sts. SE.	George Brooks	Dwelling	do	Chimney		
15	9.47			1628 L st. NW				Burning brush		
16			9.08	1136 16th st. NW	E. F. Simpson	Dwelling	Frame	Chimney		
17			8.47	507 11th st. NW	J. Q. Thompson	Printing office	do	Hot ashes	10	10
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										













APRIL, 1892—Continued.

Local or silent alarms.

No. of fire.	Date.	Box.	Hour.	Location.	Owner or occupant.	How occupied.	Style of building.	Cause.	Dam- age.	Insur- ance.
1	1		A. M. 9.36	626 12th st. NE	James Jones	Dwelling	Frame	Stove	\$25	
2	15		P. M. 2.44	211 A st. SE	T. W. S. Philips	do	Brick	Unknown		
3	19		9.07					False alarm	100	\$100
4	23		7.18	115 H st. NW	J. N. Richardson	Tailor shop	Brick	Falling lamp	100	
5	25		4.17	1227 10th st. NW	William F. Huntress	Oil wagon	Frame	Incendiary	25	
6	25		8.58	603 Pomeroy st. NW	A. Smith	Dwelling	Brick	Unknown	200	
7	28		4.57	326 2d st. SE	J. F. Buckler	Wareroom	Frame	Incendiary		
8	29		1.17					False alarm		
9	29		3.21	335 E st. SW	William Ryan	Dwelling	Brick	Chimney	450	100

MAY, 1892.

No.	Date.	Box.	Hour.	Location.	Owner or occupant.	How occupied.	Style of building.	Cause.	Dam- age.	Insur- ance.
1	1	254	5.19	1526 New Hampshire ave. NW	P. T. Noonan	Plumbers' shop	Frame	Accident	\$100	
2	2	125	12.23	430 7th st. NW	L. Albright	Publishing house	Brick	Unknown	10	
3	6	21		1128 1st st. NW	H. D. Newton	Dwelling	do	Child playing with matches	200	\$100
4	6	14	8.45	201 F st. NW	P. F. Daley	Grocery	do	Accident	50	50
5	8	37		1911 Pennsylvania ave. NW	Hugh Rieley	Paint store	do	Unknown	20	
6	8	73		3247 O st. NW	Chas. E. Brown	Outhouse	Frame	do		
7	8	38		2005 I st. NW	D. H. Rucker	Dwelling	Brick	Chimney	150	
8	11	142	11.03	1218 G st. NW	R. Baird	Woodshed	Frame	Explosion of gasoline can		
9	12	416	12.53	512 10th st. SW	Alice Ford	Dwelling	do	Chimney	200	150
10	12	129	7.47	809 D st. NW	Chas. Simon	do	Brick	Stove	50	50
11	12	31	10.38	1800 E st. NW	R. R. Callow	Grocery	Frame	Unknown	25	
12	12	137	11.28	923 10th st. NW	C. F. Hudson	Dwelling	Brick	Child playing with matches	1,200	
13	14	137	12.34	317 4th st. NW	Whyte estate	Unoccupied	do	Incendiary		
14	15	121	3.58	907 F st. NW	P. J. Claffin	Optician	do	Electric machine		
15	15	131	8.24					False alarm	150	150
16	18	415	8.07	317 14th st. NW	Chas. Walter	Coach-maker	Brick	Unknown		
17	20	163	8.16					False alarm		
18	22	37	8.56	1711 New York ave. NW	Saml. Gibson	Dwelling	Brick	Chimney	500	
19	24	31	2.59	K. bet. 4th and 8th sts. SW	Danl. Hannan	Unoccupied	Frame	Unknown		
20	25	415	11.50	15th and G sts. NW	O. G. Staples	Hotel	Brick	Smoke pipe		
21	26	146	9.46	124 Madison alley	Nancy Jones	Dwelling	do	Chimney		
22	27	213	10.25	517 Rhode Island ave. NW	Ann Reynolds	do	Frame	Upsetting lamp		

23	28	19	8 26	519 New Jersey ave. NW	P. Grimsley	do	Brick	Explosion of gasoline stove.	25	25
24	30	256	9 54	18th st. and Columbia road	D. McPherson	do	Frame	Incendiary	600	525

Local or silent alarms.

1	1	9 14	1017 15th st. NW	C. B. Smoot	Dwelling	Brick	Burning rubbish			
2	6	7 55	Brightwood	J. E. Moses	Stable	Frame	Unknown	\$3,000		
3	8	4 10		E. Meany	Dwelling	Brick	False alarm		10	
4	10	2 44	33 Essex court NW	C. O. Horton	Dairy	Frame	Explosion of oil stove		50	\$50
5	11	1 57	643 O st. NW	Jas. Wheeler	Dwelling	Brick	Accident			
6	11	4 00	915 16th st. NW	John Smoot	Fruit store	Frame	Lamp explosion	500		
7	12	9 01	311 Pennsylvania ave. SE	George Botsch	Smoke house	Brick	Accident	60	60	
8	13	11 00	1314 22d st. NW	C. D. Reckewek	Dwelling	do	Child playing with matches	100	100	
9	14	2 52	630 O st. NW	Thos. Goldman	do	do	Upsetting stove	10		
10	17		1 15 E st. NW	C. Zeriza	do	Frame	Explosion of gasoline stove			
11	17	4 57	306 C st. SW	W. T. O'Neil	Grocery	Brick	Upsetting lamp			
12	17	9 44	3024 M st. NW	Chas. Werner	Stable	Frame	Accident			
13	18		56 G st. NW	John Kaiser	Restaurant	Brick	Explosion of gasoline stove			
14	23	2 58	1314 32d st. NW	W. O. Berry	Stable	Frame	Unknown			
15	26	5 32	491 G st. SW	J. Sidel	Stable	Frame	False alarm			
16	30	8 10					Unknown			
17	31	11 56	902 N. C. ave. SE							210

JUNE, 1892.

1	2	6 27	213 K st. NW	H. Becket	Dwelling	Brick	Unknown	\$15		
2	3	5 48	926 19th st. NW	Allen McLean	Cabinet shop	do	Spontaneous combustion	2,000		
3	3		1503 T st. NW	Nellie O'Brien	Dwelling	do	Gas jet	5		
4	4	11 58	503 7th st. SW	A. J. Pumphrey	do	Frame	Fat on stove			
5	4		363 O st. SW	Thos. Kirby	Stable	do	Spontaneous combustion	10		
6	5			E. D. McConnell	Wood shed	Frame	False alarm			
7	6	10 15	919 C st. NE	M. Gillingham	Dwelling	do	Unknown	75		
8	6		1217 9th st. NW	C. R. Sherwood	do	do	Using gasoline near light	75		
9	9	6 22	924 H st. NE	Georgetown Gas Co	Gas office	Brick	Explosion of gasoline stove	60	\$40	
10	9	8 58	1068 29th st. NW	M. W. Fuller	Wood shed	Frame	Escaping gas	10		
11	10		637 B st. NE	J. F. Hagen	Dwelling	Brick	Stove	100		
12	13	6 00	1344 5th st. NW	Wm. F. Huntress	Stable	do	Explosion of gasoline stove	15		
13	13		1227 10th st. NW	S. P. Bryan	Wood shed	Frame	Unknown	300		
14	14	4 13	1108 H st. NW	Stephenson Bros.	Kindling mill.	Frame	Accident	75		
15	14						False alarm			
16	18	8 50	7th st. wharf SW				Sparks from stack			
17	18		336 D st. SW	James Barbour	Stable	do	Incendiary		2,800	





## H.

### REPORT OF SUPERINTENDENT TELEGRAPH AND TELEPHONE SERVICE.

OFFICE TELEGRAPH AND TELEPHONE SERVICE,  
*Washington, D. C., October 6th, 1892.*

SIRS: Referring to the estimates submitted in annual report for support of the telegraph and telephone service during the fiscal year ending June 30, 1894, I beg to suggest that you omit the item of \$150,000, therein recommended for reconstructing the fire-alarm telegraph with overhead wires, and insert in lieu thereof \$50,000, to commence the good work of placing the wires of the District underground, accompanied with such special legislation as may be necessary to carry out the plan as outlined in a special report on that subject which I had the honor to submit August 30, 1892.

Very respectfully,

HENRY R. MILES,  
*Superintendent Telegraph and Telephone Service.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA:

---

OFFICE TELEGRAPH AND TELEPHONE SERVICE,  
*Washington, D. C., July 26, 1892.*

SIRS: I have the honor to submit the twenty-eighth annual report of the telegraph and telephone service of the District of Columbia for the fiscal year ending June 30, 1892.

This service covers a considerable area outside the city limits of Washington and Georgetown, with its telephone-reporting stations for police purposes, and would better serve in that capacity were it extended to every portion of the county patrolled by the police force. Such extension should be provided for in the near future.

The fire-alarm telegraph covers portions only of the cities of Washington and Georgetown, and was constructed with seven signal and four alarm circuits (all metallic). This limited number of circuits was ample for the number and extent of the instruments required when this plant was erected, seventeen years ago. The system embraced within its devices all the best improvements then in use, but since that time many very important improvements have been made in fire-alarm apparatus, which it would be well to introduce here when this plant shall be enlarged. Washington and Georgetown are but scantily supplied, as a whole, with fire-alarm boxes, and with one exception (Columbia Road and Nineteenth street extended), no protection is afforded to life or property by this telegraph beyond the limits of the two cities. It is true, however, that the telephones of the police patrol might be used, through the precinct station houses, from a few places in the suburbs for calling out the fire department, should their services

be required; but, at best, this would be a roundabout method for alarms. The fire-alarm telegraph (fairly good, what there is of it) does not afford that ample protection to life and property that is desirable, and which it could easily be made to do by a judicious expenditure of a few thousand dollars for rebuilding and enlarging the system. This plant was erected during the summer of 1875, with 75 signal boxes, at a cost of \$75,000, paid for wholly from the revenues of the District of Columbia. These 75 boxes were distributed over the seven signal circuits. Since that date, 78 boxes have been added, thus crowding 153 boxes into the seven circuits—overloading them. On the four alarm circuits are distributed the gongs and bells upon which are sounded the alarms for fire, and the time signals, struck daily. These circuits, like those of the signal, are overloaded with instruments; neither class of circuits can be increased in number, however, without first obtaining new repeaters, switchboards, and other central-office instruments having the necessary enlarged capacity.

Having treated somewhat exhaustively on this subject in my annual report last year, and as no definite action has been taken thereon, and as, in my judgment, this is very important to the citizens of the entire District of Columbia, and especially so to those living and owning their property in suburban villages near the city, I beg to repeat, in part, what was said in that report, as follows:

Increase the number of fire-alarm boxes 250, making the total 400. Distribute these 400 boxes as nearly equal as practical over 40 metallic signal circuits. Increase the alarm circuits to 10 for connecting with the necessary number of fire companies. Provide for 4 separate bell circuits, which shall connect only with such number of church bells as may be requisite for giving the "time signals" to every section of the two cities; these signals to be struck through the 4-circuit manual repeater now in use. Procure for the central office four 15-circuit automatic repeaters and one 15-circuit manual repeater, together with the necessary switchboards and other central-office outfits to meet the enlarged capacity of such plant. I feel justified in urging the necessity for this improvement. The growth of the city demands it, and unless some such plan is adopted it will be literally impossible to maintain an efficient fire-alarm, and without an efficient fire-alarm there can not be any great degree of efficiency in the fire department.

Whether the wires are to be put underground or not, the lines must be rebuilt very soon; it is absolutely hazardous to further postpone their reconstruction. Nearly all the overhead part of the fire-alarm wires were put up sixteen years ago and were supported in part on housetop fastenings, and the remainder on small poles which are now in an advanced state of decay. Of course the lines are in a very bad condition, and I state the case mildly when I inform you that nearly all the wires of the department are in an unsatisfactory condition. The superintendent has been and is quite helpless in the matter; but having frequently called attention to the subject he could only wait and hope for relief.

If the wires are to be put underground the work should be commenced as soon as possible, and even should that work be undertaken as early as next spring it will become necessary to put in many new poles along the old existing lines. I called very earnest attention to this necessity in my last annual report and in a subsequent communication on the same subject, but Congress made no provision for such repairs.

Should ample provision be made for placing all the wires underground, and should the work be commenced in the near future, even then it will be necessary to secure an appropriation for keeping the present lines in reasonably good condition while the cables are being laid. This, in my judgment, can not be done without an expenditure of at least \$7,500 for new poles. Of course the overhead system must be maintained until the underground shall have been fully completed.

Having failed in procuring the necessary appropriation for putting the overhead wires in repair, as above recommended, I can only add that the lines, notwithstanding the most strenuous effort to keep them up, are in a more forlorn condition than they were a year ago.

During the year just closed, several of those decayed poles have fallen, and many others are liable to fall at any time, and yet no adequate sum has been provided for making these absolutely necessary



repairs. You will not wonder, therefore, that I am obliged once again to report the lines in bad condition. This has become a very serious matter, and yet, as stated in the quotation from last year's report, the superintendent is helpless in the premises. I respectfully and very earnestly renew the entire recommendation in regard to increase of plant, and sufficient appropriation for putting the air lines in good repair, pending an entire reconstruction of the system—either under ground or over head, as may be wisely determined by Congress.

To rebuild the lines over head, with the best quality of poles, tall enough to support the wires above the tree tops, and with the best quality of hard drawn copper wire of suitable gauge, would cost, for construction of the lines, as per estimate \$105,000, and the necessary new instruments about \$45,000; making the total cost of the proposed new plant \$150,000. These estimates I consider fair and reasonable, and yet far below the relative prices paid for the present system.

Should an underground system of wiring be adopted, the cost would be largely in excess of the estimate for overhead construction.

The number of new boxes (250) recommended, would, with those now in use, increase the total to 403, which would be a reasonable supply for the two cities and the suburban villages and settlements within reach of the fire department, all of which are in great need of better protection from fire. The cheapest, quickest, and most ready way to give this protection would be a rebuilding of the entire system with overhead wires, substantially as recommended; but should a sufficient sum be appropriated to put the new plant all under ground at the beginning, I think the underground would be the best system. A mixed system of air line and underground wiring for municipal telegraphing is open to many serious objections; hence in recommending I give it as my best judgment that it would be far better to have all the wires under ground or all on poles.

#### EXPERIENCE WITH UNDERGROUND WIRES.

Since the summer of 1883 this department has been using, to a limited extent, the Waring underground cables for both telegraph and telephone service; and considering the insecure and cheap method of putting them down, the cables have given good satisfaction.

These cables were laid in detached sections, aggregating about 4½ miles of conduit or rather shallow trenches, in which were laid 26½ miles of conductors, some of which are in fairly good condition, and some in bad order. With the exception of one 6-wire cable (in good condition) from this office to the District building, and one conductor from this office to No. 4 engine house, all the conductors in each section of the several cables are connected with the overhead wires of the department, and although protected as well as possible from atmospheric electricity, by the use of lightning arresters, many of the cable wires have been seriously injured by lightning. The great liability to such injury is a very strong reason why it is better to have the plant entirely under ground or all on substantial poles.

Another and far more serious trouble, however, has befallen our cheaply laid cables, namely, frequent opening of the streets and sidewalks without the knowledge of this department. In some instances the parties having a permit to open the street or sidewalk claim that they were not notified, and consequently had no knowledge that there were any cables in that vicinity. Whether the pretense of ignorance in some, at least, of the cases referred to is true, is doubtful, but the fact



remains that in this way many of the conductors in the cables have been seriously injured. When it so happened that one or more wires were actually severed the operator on duty at headquarters would discover the cut at once and have the damage repaired without serious detriment to the cable. But in numerous cases only the outside lead covering would be cut, thus giving an opportunity for dampness to penetrate the insulation surrounding each conductor, and in this way the real injury would develop weeks and sometimes months after the cutting of the outer lead sheath had been done.

It is my opinion, founded on close observation, that but for the two causes mentioned the cables would now be in good condition. As it is, however, their condition is bad. The first cause (lightning) it would be difficult to wholly prevent where overhead lines of considerable length are connected with cable conductors. The second could be easily obviated in the better methods now being adopted in constructing the conduits for a proper system of underground cables.

#### TELEPHONE SERVICE.

Exclusive of the patrol service in the several police precincts and of the exchange service there are 42 telephone circuits (earth return), on which there are 62 sets of telephones for the transaction of business connected with the various departments of the District government, including a portion of the public schools in Washington and Georgetown.

#### EXCHANGE TELEPHONES.

Various departments of the District government have been furnished with exchange telephones during the year at the expense of this department, to wit, four at executive offices located in the District building, Commissioners Douglass and Rossell, Capts. Lusk and Fiebiger, Secretary Tindall, Coroner Patterson, Superintendent of Sewers McComb, sand-yard stables, District Attorney Hazelton, health department, police court, Washington Asylum, Franklin School, and one at this office. For these a rental of \$50 each per annum has been paid.

#### TELEPHONES IN POLICE SERVICE.

Exclusive and independent of the two classes of telephone service above there are 152 sets of telephones used in connection with the police department. These, with the 62 first mentioned, are all operated on the wires belonging to the District and under control of this department, and for the use of which an annual rental of \$15 each per set is paid. In addition to these two rates of rental for the telephones a gross sum of \$300 per annum has been paid for the privilege of exchange service with the Chesapeake and Potomac Telephone Company.

#### SCHOOL TELEPHONES.

The public schools which have had telephone service during the year were the Abbott, Blair, Curtis, Cook, Dennison, Franklin, Force, Gales, Garnett, Grant, High, Henry, Industrial, Jefferson, Lincoln, Lovejoy, Maury, Peabody, Randall, Sumner, Seaton, Webster, Wormley, Wallach. Total, 24.

## LOCATION OF TELEPHONES IN MISCELLANEOUS SERVICE.

In the miscellaneous distribution of telephones on the District wires, for official use, one each is located as follows:

Fire-alarm office, office of chief clerk, sanitary office, and detective office—all at police headquarters. Office of Secretary Tindall, Property Clerk Beckett, chief engineer fire department, and water department—all in District Building. Residences, Superintendent Miles, Repairman Parker, Fire Marshal Drew, Water Tapper Fitzgerald, Major Moore, and Police Surgeons McKim, Strickler, Kleinschmidt, and Henderson. U street pump-house, Georgetown pump-house, District pound, health department, St. Elizabeth Asylum, Washington Asylum, Washington Asylum dispensary, Emergency Hospital, police court, and one at each of the eleven fire companies; total 38.

## POLICE PATROL SERVICE.

The patrol telegraph and telephone service, covering the 9 precincts, has 126 stations or boxes, from which reports are sent in to the station keepers, every hour in the day. The first precinct has 13 street stations, the second, 16; the third, 16; the fourth, 16; the fifth, 14; the sixth, 13; the seventh, 14; the eighth, 10; the ninth, 14; total, 126 street stations from which reports are made, and assistance called when needed.

## WHEN CONSTRUCTED.

The patrol telegraph was erected and put in operation in the several precincts, as follows: In the first, October 1, 1884; in the sixth, March 16, 1885; in the fourth, November 1, 1886; in the second, October 26, 1887; in the third, November 1, 1888; in the ninth May 1, 1889; in the seventh, October 1, 1890; in the fifth, June 24, 1891; in the eighth, June 24, 1891.

## POLICE TELEPHONE REPORTING STATIONS.

The substation at Anacostia has a telephone connected with the fifth precinct station house. Tennallytown substation has connection with the seventh (Georgetown) precinct station house. In the eighth precinct, there are six telephone reporting stations in the county, all connected with the station house on U street, between Ninth and Tenth streets, NW. These reporting stations are located, one each at Ivy City, Brookland, Takoma, Brightwood, Seventh street and Rock Creek Church road crossing, and Mount Pleasant.

## CONDITION OF THE PATROL INSTRUMENTS.

With the exception of the call boxes in the fourth and ninth precincts, the patrol service is in good working order, but have considerable annoyance, by induction, during the night, from electric light wires. The call boxes in both the fourth and ninth precincts are badly worn, but the wornout boxes in both precincts are soon to be replaced with new ones—provision having been made for that purpose.

During the month of October last, new inking registers, with necessary relays, were obtained and put in place of the worn-out chemical registers in the second, fourth, sixth, and ninth precincts.

When the new call boxes shall have been substituted in the fourth

and ninth precincts, for those worn out, the entire system will be in good working order.

The patrol office furniture, in several of the precincts, ought to be renewed as soon as may be, for the reason that it is altogether too primitive in style, too cheap in appearance, and not in harmony with the surroundings.

#### RECAPITULATION OF THE TELEPHONE SERVICE.

From July 1, 1891, to April 30, 1892, 214 sets of telephones were used in the various departments of the District government at the annual rental of \$15 each per set.

During July, August, and September 19 sets of exchange telephones were in use at a rental of \$50 per set per annum, and from October 1 to April 30, 18 exchange telephones were in use at the same rate of rental.

During May and June, 1892, for want of funds from which to meet expenses, 21 sets of the \$15 and 8 sets of the exchange telephones were discontinued by order of the Commissioners, resulting in a net saving of \$119.17 in rents, and thereby avoiding a deficiency.

The records of the department show that at the beginning of the fiscal year 233 sets of telephones were employed in the discharge of District official business; that during the last two months of the year only 203 were in service, a reduction of 30 instruments.

#### TELEPHONE MESSAGES SENT AND RECEIVED AND RECORDED AT THE CENTRAL OFFICE.

There were sent and received on official business during the fiscal year 132,314 messages, which were recorded in the department books monthly, as follows:

July .....	13, 172	February .....	9, 324
August .....	11, 194	March .....	9, 388
September .....	12, 544	April .....	8, 619
October .....	12, 103	May .....	10, 801
November .....	11, 609	June .....	10, 593
December .....	11, 911		
January .....	11, 056	Total .....	132, 314

In addition to the recorded messages, thousands of communications pass over the wires from and to the central office every week.

#### CALLS AND MESSAGES THROUGH THE PATROL SYSTEM.

Reports from boxes by officers while on duty .....	563, 030
Calls for patrol wagon by officers while on duty .....	6, 664
Calls for patrol wagon by citizens .....	189
Official messages sent and received .....	3, 790
Miscellaneous communications .....	1, 206
Total .....	574, 879
Add the recorded messages sent and received at this office .....	132, 314
Grand total .....	707, 193

#### ALARMS FOR FIRE DURING THE YEAR.

There were 407 alarms for fire given over the wires during the year. Of this number, 218 were regular alarms by telegraph; 3 were second, and 5 were general alarms; 181 were what are denominated local alarms,



and were sent out by telephone. These records show an increase over the previous year of 64 alarms.

The alarms occurred monthly as follows:

	Regular.	Local.	Second.	General.
July .....	19	9		
August .....	8	0		
September .....	13	5		2
October .....	23	18		1
November .....	25	26		
December .....	19	23	1	
January .....	17	18		1
February .....	17	15		
March .....	11	17	1	
April .....	15	0		1
May .....	24	17	1	
June .....	27	18		
Total .....	218	181	3	5

#### TIME SPENT IN EXTINGUISHING THE FIRES.

In response to alarms during the year, a portion of the fire companies were absent from quarters while subduing fires (allowing eight hours for a day's work) thirty-six days, four hours and eleven minutes—per month as follows:

	Hrs.	Min.
July .....	19	12
August .....	9	8
September .....	20	32
October .....	28	55
November .....	43	2
December .....	27	18
January .....	24	14
February .....	21	4
March .....	19	12
April .....	20	27
May .....	24	36
June .....	34	31

#### FROM WHENCE THE ALARMS CAME.

Of the 399 first alarms, 199 came from the fire-alarm boxes, 19 from the police stations, and 181 from miscellaneous telephones.

#### BETWEEN WHAT HOURS THE ALARMS WERE GIVEN.

Between midnight and 6 o'clock a. m. 55 alarms were struck; 93 alarms between 6 o'clock a. m. and 12 o'clock m.; 114 alarms between 12 o'clock m. and 6 o'clock p. m.; and 137 alarms between 6 o'clock p. m. and midnight.

#### FIRE-ALARM BOXES FROM WHICH ALARMS CAME.

There was one alarm from each of the following boxes: 13, 15, 16, 121, 128, 134, 135, 149, 151, 154, 163, 24, 25, 26, 213, 215, 237, 239, 243, 245, 246, 247, 253, 256, 263, 312, 314, 326, 416, 432, 51, 53, 56, 516, 523, 527, 534, 621, 714, 721, 732, 735; two each: 12, 124, 127, 129, 152, 28, 254, 35, 328, 43, 423, 425, 52, 58, 518, 524, 526, 62, 63, 623, 73, 713, 731; three each: 19, 125, 137, 141, 142, 146, 147, 23, 214, 216, 38, 39, 318, 319, 42, 428, 54, 612, 634; four each: 14, 21, 212, 241, 31, 37,

# 160 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

41, 71; five each: 17, 45, 413; seven from 415; and eight from boxes 123 and 131.

There were no alarms from boxes 18, 126, 132, 136, 138, 143, 148, 153, 156, 157, 162, 27, 217, 218, 219, 236, 238, 248, 249, 251, 257, 261, 32, 34, 36, 315, 321, 324, 325, 327, 46, 47, 48, 412, 417, 421, 426, 427, 431, 435, 436, 67, 512, 513, 514, 517, 521, 528, 531, 532, 61, 64, 65, 67, 68, 69, 613, 614, 625, 627, 628, 632, 72, 76, 712.

## EXPENDITURES DURING THE YEAR.

Battery supplies:	
12,337 pounds bluestone .....	\$648.22
9,180 pounds crow-foot zinc .....	725.09
100 Le Clanche zincs .....	4.25
192 pounds sheet copper .....	51.36
240 cells dry battery .....	141.60
Total cost of maintaining batteries .....	1,570.52
Telephone rents and tolls .....	4,330.73
Office room rent .....	200.00
Blacksmithing .....	32.50
Wire, for outdoor and inside work .....	147.72
Purchase of wagon for linemen's service .....	100.00
15 tons of coal .....	75.00
90 shunts for patrol booths .....	19.00
New poles and setting same .....	86.50
New instruments purchased .....	594.50
6,870 pounds ice during the year .....	23.79
Sundry office supplies, aggregating .....	42.15
Books and stationery .....	43.58
Register chemicals for patrol service .....	42.30
Register paper for patrol service .....	162.08
Forage for horses .....	231.64
Gas bills for the year .....	105.75
Washing .....	24.00
100 new keys for the patrol boxes .....	20.00
Repairs of electrical instruments .....	20.80
New cross arms, pins, etc. ....	33.44
New stove, and stove repairs .....	37.07
Printing last annual report .....	7.37
Total expenditure, exclusive of salaries .....	7,950.44
Total paid for salaries .....	10,800.00
Total for all purposes .....	18,750.44

## ADDITIONAL HELP NEEDED.

In the annual report of last year I had the honor of calling attention to the necessity of employing additional help, and inasmuch as there was no specific action taken in regard thereto, I respectfully beg to repeat what was then said, to wit:

The large increase in the telegraph and telephone service during the past two years renders it necessary to increase the help to take care of both lines and batteries. Up to the present time one of the laborers has taken the entire care of the line batteries of the fire-alarm telegraph at headquarters and the patrol batteries at the several station houses; but since the introduction of the system into all the nine precincts, the work is greater than one man can properly perform. I therefore recommend that a battery man be provided for at a salary of \$600 per annum.

Within a little more than a year's time about 70 miles additional overhead wire has been added to the lines of this department, and some of it extending to Takoma Park, Ivy City, and Brookland. This great increase in the lines carries with it the necessity for one additional repair man at the same rate of salary paid the other repair men.

Both these additional men were needed then. It is true that we have gotten along thus far without such aid, but this fact does not lessen the necessity. I earnestly renew the recommendation for both men.

ESTIMATES FOR THE ENSUING YEAR.

To meet the expenses of the department during the fiscal year ending June 30, 1894, I respectfully submit the following estimates:

Salaries:

One superintendent .....	\$1,600
One electrician .....	1,200
Three telegraph operators at \$1,000 each .....	3,000
Three telephone operators at \$720 each .....	2,160
Three repair men at \$720 each .....	2,160
One expert repair man .....	960
Two laborers at \$400 each .....	800
One batteryman .....	600

Total ..... 12,480

Supplies of all kinds:

Battery supplies, office and telephone rents, and general expenses, exclusive of special line repairs .....	10,000
New poles and cross arms for special line repairs .....	8,000

Total ..... 18,000

For rebuilding and enlarging the fire-alarm telegraph ..... 150,000

RECAPITULATION.

For salaries .....	\$12,480
For supplies and special repairs .....	18,000
Rebuilding and enlarging the fire telegraph .....	150,000

Grand total ..... 180,480

In the estimates submitted for the next ensuing year, it will be observed that a slight increase is requested in the salaries of each of the three telephone operators. These young men have to labor Sundays, holidays, and nights the year round, and, as I look at it, they earn all that is asked in their behalf. I respectfully request that you approve the rate proposed.

The sums stated for general and special expenses of the department are as low as it will be safe to insure efficient service.

The amount suggested for rebuilding and enlarging the fire-alarm telegraph is a conservative and yet a safe estimate for the work, as outlined in the general remarks under that head in this report. I respectfully invite your special attention to the urgent necessity for this improvement.

In conclusion I return my sincere thanks to each of the Commissioners for their several efforts in support of this department, in the struggle to get through the fiscal year on the small appropriation for its support. I wish to acknowledge, with thanks, the many obligations this department is under to the officers and men, of both the police and fire departments.

The employes of this department have each and all been diligent in the discharge of their respective duties; they deserve and have my sincere thanks for their efforts in maintaining an efficient service.

Respectfully submitted,

HENRY R. MILES,  
Superintendent Telegraph and Telephone Service,  
District of Columbia.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



## I.

### CHARITABLE AND REFORMATORY INSTITUTIONS.

#### I 1.

#### REPORT OF THE SUPERINTENDENT OF CHARITIES.

DISTRICT BUILDING,  
*Washington, D. C., September 30, 1892.*

GENTLEMEN: I have the honor to transmit my second annual report as superintendent of charities for the District of Columbia. It includes some account of the operations of the institutions under my supervision during the fiscal year ending June 30, 1891, the estimates of the appropriations for the work of the fiscal year ending June 30, 1894, the legislation passed at the last session of Congress affecting the charities of the District, and various documents and memoranda which it is thought best to print for the information of those interested in the charities of the District.

#### SCOPE OF THE SUPERINTENDENT'S POWERS.

The work falling under the supervision of the superintendent of charities depends very largely upon the classification of the institutions ~~as set out~~ in the annual appropriation bills. It results from the changes made during the last session of Congress that the appropriation for the deaf and dumb is placed in another part of the appropriation bill, and this work is therefore no longer under his supervision by law, as it has never been in fact. On the other hand, the appropriation for the care of the feeble-minded children of the District who are sent to Elwyn, Pa., under an act approved June 6, 1880, has been left in that part of the appropriation bill for which the superintendent of charities must furnish the estimates. He therefore visited Elwyn and has included some account of the District children there cared for in his present annual report.

The Girls' Reform School, for which an appropriation was first made at the last session of Congress, has been included in this department, although it seems to be by previous legislation in some sort under the Department of Justice as well as under the District Commissioners.

For many years the Boys' Reform School was under the Department of Justice only; but latterly the District Commissioners were given power of supervision over it and required to furnish the annual estimates for its maintenance. By order of the Commissioners dated September 17, 1892, it was directed that hereafter all reports, vouchers, and requisitions of the Boys' Reform School be referred to the Superintendent of Charities, and that the annual estimates for this institution be included in his annual report. This order was made against my recommendation, as it seemed to me that my work for the charities of the District would be more successful if it did not cover too large a field.

The trustees of the Reform School do not yet concede the right of the superintendent to exercise the supervision authorized by the order

of the Commissioners, and no attempt to treat of that institution in the present report has therefore been made.

Another matter which may lead to the extension of the department of the superintendent of charities, was the transfer of the Freedmen's Hospital from the sundry civil bill to the District appropriation bill, with the result that this institution will hereafter be supported from District instead of from purely Federal revenues. The old legislation which placed this institution under the Department of the Interior is not repealed, and, therefore, its present administrative status is somewhat anomalous.

For a number of years a fund of \$16,000 has been placed at the disposal of the Commissioners for the "relief of the poor." In compliance with the request of the Commissioners I have submitted recommendations regarding the apportionment of this sum, as also regarding the fund "for the temporary support of indigent persons."

#### METHODS OF ACCOUNTING.

The work of properly auditing the accounts of private institutions receiving District subsidies is very considerable, both for the Government officials and the managers of the institutions. The accounting officers of the various boards of management are considered disbursing officers of the Federal Government, required to give personal bond, and to return quarterly the vouchers for all public moneys disbursed. In addition to this, as superintendent of charities I have been compelled to ask for summarized quarterly statements of the funds received from private sources and the manner of disbursement. It requires a good deal of the spirit of self-sacrifice on the part of the various treasurers to attend to all these matters, and they deserve as much credit as those that do work which appeals more directly to the sympathies. As new officers take charge of the accounting from time to time, when a great deal of explanation is necessary and a considerable number of mistakes result from a lack of information on the part of the new appointive, I insert here a full statement of the various forms used, and of the requirements of the District and Federal accounting officers.

*Reports required of institutions receiving public money.*—Institutions receiving public money through the District appropriation bill are under the supervision of the superintendent of charities whenever the items are included in that section of the annual bill headed "For charities." Two sorts of reports are required from such institutions, one to the superintendent of charities, and others which pass through the hands of District officials, but are finally lodged with the accounting officers of the United States Treasury. Blanks for all these reports can hereafter be obtained from the superintendent of charities, and, to avoid mistakes, should be ordered by number. This circular does not modify existing regulations, but merely describes them. Blanks 4 to 7, inclusive, are now for the first time printed by the District, in order to secure uniformity and save trouble on the part of the disbursing officers. In case of delay, a letter addressed to the superintendent of charities will cause him to look up papers that may have been transmitted, and to find out why they have been detained.

*Reports to the superintendent of charities.*—Forms 1, 2, and 3 are used for the quarterly reports made by subsidized institutions to the superintendent of charities. "Form 1" is for hospitals and dispensaries, "Form 2" for temporary homes, and "Form 3" is for institutions for children, including reformatory and industrial institutions. The financial statements are the same on all these forms and include the information which the superintendent is obliged by law to collect



for the Commissioners and the Congressional committees. The statement of income includes all receipts whatever, classified under the six heads of "balance on hand," "receipts from loans," "public funds," "income from endowments or invested funds," "pay patients or inmates, or the work of inmates," and sixth, "all other sources." This last heading includes subscriptions, donations, membership dues, receipts from fairs, entertainments, and, in short, all forms of private contributions. Expenditures are classified under the six heads of "rent," "salaries," "all other items of maintenance" (which includes ordinary repairs), "permanent improvements" (which includes purchase of real estate), "payment of interest," and "payment of the principal of debts." The report of work done varies according to the character of the institution and is sufficiently explained by the blanks in each case. These reports should be sent in within three weeks after the close of each quarter, and delay beyond this time causes very decided inconvenience to the superintendent of charities.

*Reports for the Treasury Department.*—When an institution receives money by direct appropriation from Congress, the treasurer of the association or board of trustees is required, first of all, to file a bond as a disbursing officer of the United States Government. The amount of the bond is in proportion to the amount of the appropriation, and is fixed in each case by the Treasury officials. Inquiry regarding it should be made at the office of the First Comptroller of the Treasury, department of District accounts. When an institution that has received ordinarily but a small appropriation receives a much larger one, a larger bond may or may not be required; if not, the advances will not be allowed to exceed at any one time the amount of the bond given. In order to qualify as disbursing officer the treasurer of a new institution or the new treasurer of an old institution should first secure "Form No. 4," which is a blank of the bond which he is required to file, and he should ascertain from the Treasury Department the amount of the bond which he is expected to give. There must be two bondsmen, who must qualify in double the amount of the bond required, and some officer of the Government must certify that the sureties who have signed the bond are responsible and sufficient.

When the bond of the required amount is properly made out and signed it should be sent to the superintendent of charities, by whom it will be forwarded to the Treasury Department. There should accompany the bond a certificate of election of the treasurer and evidence of his authority to indorse for the association or board. Such certificate and evidence should be in the form of an extract from the by-laws or records, showing the authority of the officer to indorse and receive and receipt for moneys for the association or board, and giving his name and the date of his election or appointment, which extract must be verified by a certificate under seal, signed by the president and secretary or by one of these officers and by not less than two of the members of the association or board, which certificate must state that such authority remains unrevoked and unchanged. If the association or board have no seal, the extract should be certified as correct by a notary public or other competent officer under his seal. When a resolution is adopted at a special meeting it must be shown that all had notice of the time and place of such meeting and that a quorum assented to the resolution. Treasury blank, "Form 1779," can be used for this certificate if desired. After the filing of the bond the treasurer can draw a requisition addressed to the Commissioners of the District of Columbia, for which purpose "Form No. 5" is prepared. The requisition must be for only



one quarter. It passes through the hands of the Commissioners, the superintendent of charities, and the District auditor, and, when duly approved by these officers, the Secretary of the Treasury causes a warrant to be issued for the amount of the quarter's allowance to be issued in favor of the Treasurer of the United States, and the money is deposited to the credit of the disbursing officer. The latter should obtain a check book from the United States Treasurer, which must be used in drawing all checks against the account. At the end of the quarter the disbursing officer must furnish vouchers, properly signed, for all his expenditures.

No special blank or form is required for the vouchers themselves. A receipted bill, duly itemized, showing amount of purchase, price, and amount, which is properly approved by the chief officer of the association other than the disbursing officer, will be accepted. An abstract of disbursements is required, for which "Form No. 6" should be used. The vouchers being numbered, a corresponding number is entered on the abstract of disbursements, together with a statement of the person to whom the amount was paid and the amount itself. The voucher number may begin either with the beginning of the fiscal year, with the beginning of each quarter, or at the beginning of the receipt of public money by the institution. With the abstract of disbursements and vouchers should be sent also an "account current," showing the condition of the disbursing officer's account with the United States Treasurer. For this "Form 7" is used.

The account current, abstract of disbursements, and the vouchers should be in a bundle by themselves, and the requisitions not put in with them. This is to avoid delays, as the accounts sometimes have to wait a considerable time before they can be audited, while the requisitions are passed on promptly.

*Reports from institutions receiving money by apportionment.*—Congress has placed at the disposal of the Commissioners a fund "For the relief of the poor" and another "For the temporary support of indigent persons." From these two funds the Commissioners have been in the habit of apportioning certain amounts to private institutions. The accounts of such institutions do not have to be transmitted to the Treasury Department for final audit, but are filed with the District auditor. All that is required by the latter official is a quarterly statement of expenditures made from the public money received. For this purpose an abstract of disbursements should be used and vouchers handed in along with it.

#### LEGISLATION AFFECTING CHARITIES.

Several enactments of the first session of the Fifty-second Congress affect the charities of the District. Those bearing especially upon institutions under the superintendent of charities will be noticed in the parts of the report where these institutions are treated. Two laws of considerable importance bearing upon the work of dependent children were passed. The first was an act to provide for the care of dependent children in the District and to create a board of children's guardians. This was approved July 26, 1892, and is given in full elsewhere. The second was an act to prevent cruelty to children or animals in the District of Columbia, and for other purposes. This was approved June 25, 1892. It was introduced at the instance of the Washington Humane Society, whose work it is especially designed to facilitate. Items in the appropriation bills which affect the character of certain District charities were, first, that providing for the maintenance of the Freed-

men's Hospital from District revenues; second, that changing the nature of the corporation which governs the Columbia Hospital, and, third, that which provides "that in all cases where Members of Congress or Senators are appointed to represent Congress on any board of trustees or board of directors of any corporation or institution to which Congress makes an appropriation, the terms of said Members or Senators as such trustee or director shall continue until the expiration of two months after the first meeting of the Congress chosen next after their appointment."

#### ADDITIONAL NOTES REGARDING PUBLIC SUBSIDIES TO PRIVATE CHARITIES.

The experience of a year with the charities of the District has convinced me more fully than ever that the present manner of according them public support is undesirable. The appropriation for the several institutions bears no relation to the number of beneficiaries nor to the amount of support which is provided from private sources. It might have been thought, and indeed was by many, that the superintendent of charities, having the specific duty assigned him of estimating for the various institutions, would be able to reach conclusions fair and satisfactory to all concerned, but on reflection it will be seen that there is no guide for him to follow, any more than there has been for the Commissioners or the committees in the past years. To make an appeal for public money on the general ground that the institution "is doing good" puts that appeal upon exactly the same basis as many possible ones that all would see to be unallowable; for instance, a church or private school, or a temperance association, or a society for the suppression of vice, or an association of volunteer sanitary inspectors "does good," and yet it would not be desirable under ordinary circumstances to subsidize any of these private promoters of the public weal.

It is clear that after it is ascertained that an institution is "doing good" we must also ascertain whether the good that it is doing is of the sort that can be paid for with taxpayers' money, and if so, what proportion of the good done is of this character. The first step in preparing to grant public aid to private charities must, then, be to ascertain clearly what it is proper should be done by means of public appropriations, and then to ascertain with equal clearness just how much of this particular work is being done by the several institutions.

No machinery for ascertaining these facts has existed in the District, nor was it in the power of the superintendent of charities to create such machinery. For instance, the institutions for children receive beneficiaries, each according to very flexible rules of its own enactment; and these rules are administered by matrons or committees having full power in the premises. Each institution is serving several interests. Often one of these is frequently a denominational interest, and it is within the knowledge of the superintendent that many children are admitted or retained primarily for the purpose of securing their education in the faith of a particular sect. More than this, the institutions serve general humanitarian interests which the taxpayers of the District, as taxpayers, would hardly care to serve.

For instance, while I was at one of the institutions application was made for the admission of a little girl from Virginia. The one who applied on her behalf was a missionary of a church supporting the institution referred to. It was clear from his statements that the girl was growing up under considerable abuse and under conditions that made it probable that her life would be wrecked. The lady in charge of the



institution asked me what should be done in a case of this character, and I could only answer that, as a piece of church work, it was eminently proper that she should receive the child; while as a piece of public work, paid for by the taxpayers of the District, it was not at all proper to admit her. At another institution it was found that more than half of the children had been received directly from institutions in other States, some of them coming from as far away as Massachusetts. It was desirable undoubtedly for the church which this institution serves, and on general humanitarian grounds, that these children should be brought here from a distance, trained, and cared for; but, from the standpoint of the District taxpayers, it was not proper that they should be charged upon the District revenues. Many other examples of a like nature could be given, all tending to show that much good may be done for which it is not proper that a Government appropriation should be made.

In my report last year the amounts recommended for the several institutions had no better basis than precedent. It was my wish to keep matters in their previous condition until some more businesslike arrangement could be made; and had I had any doubts as to the unbearable condition of things as they then existed, such doubts would have been dispelled after seeing the Congressional committees trying to reach businesslike conclusions in fixing the appropriations. As one member of those committees remarked, in a disgusted way, "I am satisfied that whatever we do it will be wrong." Nor were the results more satisfactory to the institutions themselves. Those interested in a given institution, seeing no specific reason why such large amounts should be given to other institutions (whose work and methods they possibly failed to correctly apprehend) and so little to themselves, resorted to special pleading that in nowise contributed to inform the committees as to the merits of the given case.

The recommendations of the superintendent of charities, while adopted in the main, could not be followed with exactness, because his knowledge of the subject was not complete enough, so that he had no special confidence in the fairness of his own recommendations. Representatives of almost every one of the institutions interested expressed to him their dissatisfaction with such a method of asking for public support. As one of the gentlemen remarked, "It puts me in the attitude of a beggar, and I do not have to beg." In order to determine what amount should be given to each institution from the public treasury, it is obvious that some method must be used of obtaining an accurate estimate of the purely public service which that institution renders. It is proper for the public authorities to make specific payment for specific work, but it is not proper to hand around appropriations on the general theory that the institutions receiving them are doing something that in some way is useful. When the latter method is tried, all sorts of extraneous considerations are brought into the discussion, such as the "recognizing" of a given nationality, or a given denomination, or some other influential class in the community.

It was, therefore, with a good deal of satisfaction that I witnessed the passage of the act to create a board of children's guardians for the District and to establish a municipal lodging house for the care of the homeless poor. In these two departments I think that the new machinery provided for will enable us to introduce the principle of specific payment for specific work, and therefore to put the subsidizing of private institutions on a business basis. The methods of such readjustment will be more fully indicated when treating of the two departments concerned.



DISTRICT CHARITIES FOR THE FISCAL YEAR.

TABLE 1.—Summary by classes of private institutions receiving District subsidies for year ending June 30, 1892.

Income from—												
Resources and liabilities.												
Institutions. (I.)	Per cent of inter- est. (IV.)			Balance. (V.)	Public funds. (VI.)	Endow- ments. (VII.)	Pay in- mates or work of in- mates. (VIII.)	All other sources, subscrip- tions, dona- tions, dues, etc. (IX.)	From loans. (X.)	Total. (XI.)		
	Estimated value of property owned. (II.)	Outstand- ing debts. (III.)										
1 Medical charities.....	\$689,052.97	\$45,660		\$11,476.79	\$43,010.00	\$6,341.50	\$10,866.81	\$12,877.50	\$5,016.81	\$89,589.41		
2 Industrial and reformatory institutions.....	298,000.00	87,000		2,069.69	20,096.74	25.00	7,256.54	2,231.86		31,679.83		
3 Institutions for children .....	396,930.00	7,500		6,212.01	33,899.17	1,604.07	1,128.75	13,985.26	5,802.66	62,631.92		
4 Temporary homes.....	46,050.00			1,952.18	11,049.69		5,350.98	3,425.12		21,777.97		
5 Total.....	1,430,032.97	140,160	5-6	21,710.67	108,055.60	7,970.57	24,603.08	32,519.74	10,819.47	205,679.13		

Expenditures for—												
Institutions. (I.)	Rent. (XII.)	Salaries. (XIII.)	All other forms of mainte- nance, in- cluding re- pairs. (XIV.)	Permanent improve- ments, in- cluding purchase of real es- tate. (XV.)	Interest on debts. (XVI.)	Payment of the principal of debts. (XVII.)	Total. (XVIII.)	Balance. (XIX.)	Average an- nual cost per inmate to insti- tution.		Per cent of income less bal- ances, earnings and loans contribu- ted by District govern- ment. (XXIII.)	
									Average annual cost per inmate to District govern- ment. (XX.)	Gross. (XXI.) Net. XXII.		
1 Medical charities.....	\$1,743.36	\$20,766.83	\$41,551.54	\$10,494.64	\$2,475.74	\$3,000.00	\$80,032.11	\$9,557.30			58.8	
2 Industrial and reformatory institutions.....		6,065.75	22,697.66	190.88	1,389.58		30,343.87	1,335.96			89.9	
3 Institutions for children .....	495.00	13,338.15	26,790.12	11,518.00	795.96	2,185.17	55,122.40	7,509.52			68.5	
4 Temporary homes.....	2,682.04	3,459.91	13,203.85				19,345.80	2,432.17			70.5	
5 Total.....	4,920.40	43,630.64	104,243.17	22,203.52	4,661.28	5,185.17	184,844.18	20,834.95			72.7	

Table 1, printed herewith, summarizes the financial operations of the three classes of institutions whose work is reviewed in this report. It will be seen that these three classes of institutions, taken together, receive from endowments \$7,970.57, from earnings \$24,603.08, and from all other private sources, including subscriptions, donations, dues etc., but not including loans, \$32,519.74. Few of them have to pay rent, as only \$4,920.40 was expended for this purpose. The gross value of their property is nearly a million and a half. The expenditures for salaries amounted to \$43,630.64; for all other items of maintenance, including ordinary repairs, \$104,243.17; for permanent improvements, including purchase of real estate, \$22,203.52. For interest on debts, \$4,661.28; for the payment of the principal of debts, \$5,185.17.

The per cent of income less balances, earnings, and loans contributed from the public revenues was 72.7. A reduction of 3.3 per cent from the year before.

#### MEDICAL CHARITIES.

TABLE 2.—Public expenditures for medical charities in ten American cities.

City.	Population (census of 1890).	Fiscal year.	Amount.	Per capita.
Brooklyn .....	806,343	1889-90	\$196,115.61	\$0.2432
St. Louis .....	451,770	1889-90	140,773.43	.3116
Boston * .....	448,477	1890	188,177.88	.4195
Baltimore .....	434,439	1891	111,790.00	.2573
Cincinnati .....	296,908	1890 or '91	110,162.92	.3710
Buffalo .....	255,664	1891	67,650.00	.2646
Minneapolis .....	164,738	1890	17,842.64	.1083
St. Paul .....	133,156	1890	27,269.02	.2074
Indianapolis .....	105,436	1891	29,170.00	.2767
Washington .....	230,392	1890-91	145,625.00	.6320
All ten cities .....	3,327,323	.....	1,034,576.50	.31093

\* The figures for Boston cover the expenditures for the city hospital only. Since the table has passed from under my hands I learn that there are expenditures on the part of the State for medical charities which serve the poor of Boston, and the per capita might possibly be as high as that of Washington if all the items could be included. However, the service is of a much higher grade than that given in Washington, costing nearly twice as much per patient per week.

In table No. 2, printed herewith, are given the public expenditures of ten American cities for the purpose of supporting medical charities. It will be seen that during the census year, to which the figures for the most part refer, that the cities spent from a little less than 11 to a little more than 63 cents per head for this purpose, the average being 31.09 cents. The per capita expenditure of Washington is twice the average of the ten cities and some 20 cents per head higher than that of any other city investigated. Our expenditures for the year named amounted to \$145,625. Of this, the appropriations for three institutions, the Freedmen's Hospital, the Providence Hospital, and the Garfield Hospital were made in the sundry civil bill and came from purely Federal revenues. The appropriation for the Washington Asylum and its hospital department came from the District revenues, but is not under the superintendent of charities. The appropriations for physicians to the poor and medicine and for the several dispensaries were obtained from the fund for the relief of the poor placed at the disposal of the Commissioners. Only three of the seven hospitals subsidized were under the superintendent of charities, and these were not the largest nor most important.

The amount expended for medical charities is probably larger than is necessary for this city, but there is no way of reaching definite con-



clusions in this matter, since no one official has any right to inquire into the operations of all the institutions concerned, or to make recommendations comprehending the whole system of medical charities of the District.

Medical charities serve two very distinct purposes. One is the relief of the poor and the other is the advancement of the professional interests, by educational and other means, of the members of the medical profession. It has been found that in nearly all cases where the condition of the applicants for medical relief was thoroughly investigated, that many applied for such relief who were able to pay for it, and should have been compelled to do so. In two hospitals in the city of New York, serving substantially the same class, one was very largely supported by the pay of those benefited, while the other hung as a dead weight upon the benevolent public. Those acquainted with the experience of medical charities are distinctly of the opinion that good results come to the patients when the latter are required to pay for what they get in so far as their means permit.

At the Fitch dispensary in Buffalo, where applicants are thoroughly investigated and all who are able to do so are obliged to pay for medicine or for services, or both, the amount of work done is larger than at any other dispensary in the city, although some of the others are decidedly lax in their rules of admission. The explanation of laxness of medical charities in the matter of investigating the applicants that go to them results from, first, the difficulty of making such investigations, and, secondly, from the competitive element as between different institutions. There is a tendency to measure the value of an institution by the gross amount of work, and to gauge the importance of the men connected with it by a similar measure.

The English experience in these matters is very instructive. The Medical Times has said that "the amount of gratuitous work done by the profession in no way raises it in public estimation. It is well known that it is not performed from motives of charity, but from the position that is gained by being attached to a hospital staff and the hope of a good practice accruing therefrom." The British Medical Journal says, "hospitals compete with each other as to the number of patients without regard to the fitness of the cases or the position of the applicants." In the Children's Hospital in London, where the rule was adopted of referring all applicants to the "Charity Organization Society," and where no patients were excluded where the parents were making 30 shillings a week, there was found an abuse rate of 57 per cent. In the London Hospital, when an inspector was appointed for the out-door patients, there was a reduction in twelve months of 7,311 patients, which brought about a saving of some \$7,000 in one year to the charity. At this hospital the abuse rate was about 50 per cent.

One of the British writers on the subject complained that physicians practicing among the wealthy classes recommended these people to always send their servants to dispensaries for treatment. When I spoke of this to a Washington physician his only comment was, "That is my course invariably." Further conversation with him developed the fact that he thought it unadvisable to have any other physician enter the houses of his patients to treat the servants and did not care to treat the latter himself. An attempt was made at two different dispensaries in Washington to prescribe for the superintendent of charities when he called on business, although he made no attempt to appear especially unwell or impecunious.

There are doubtless many reasons which make it necessary that



Washington should have large public expenditures for medical charities; larger, perhaps, in proportion to the population than some other cities. We are without the great endowments which in Philadelphia have freed the city from the necessity of providing any other hospital than that connected with the almshouse. But after all allowances are made I can not but think that if businesslike principles were adopted in providing for the indigent sick of Washington the expenditures in their behalf might be very largely reduced. In Buffalo, where the population is about the same as Washington, the per capita expenditure for medical charities is only 26 cents; a little more than one-third our own. In that city admissions to the hospitals are obtained only from the poor-law officers or the health department, and the agent of the latter department goes through the hospital wards weekly or semi-monthly to see what patients paid for by the public can be properly discharged, or, if chronic cases, can properly be remanded to the almshouse or infirmary. The city of Buffalo or the county pays a certain rate per week for the care of the patients it sends to the various hospitals.

In Washington there is no public official having authority to suggest any similar arrangements, or, in fact, any comprehensive change in our system of medical charities. The only bodies having authority in the premises are the Congressional Committees on Appropriations, and as long as they see fit to scatter the appropriations for medical charities in the District of Columbia through various bills and pay them from various funds they alone can alter the condition of affairs here indicated.

Another unfortunate circumstance connected with the disorganized condition of our medical charities is that it is not possible to operate a training school for nurses satisfactorily. The Washington Training School for Nurses has given excellent didactic instruction, but has had no adequate facilities for hospital practice. On the other hand, special hospitals like the Columbia and the Children's hospitals do not give an opportunity for well-rounded development in the work of nursing. It was at one time suggested that arrangements could be made by which nurses might pass through the three hospitals—the Garfield, the Children's, and the Columbia. This would have given unsurpassed training; but the difficulty of allowing nurses to leave an institution where they are at work in order to attend lectures, and certain other causes which almost invariably develop when coöperation is attempted between distinct institutions, prevented the carrying out of this plan. I am told that the Garfield Hospital is adding a new department to its work, not because additional facilities in the new line are needed, but in order to give complete training to the pupil nurses of that institution. The end is commendable, but it seems rather an expensive way of reaching it.

## HOSPITALS.

TABLE 3.—Finance report dispensaries and hospitals for fiscal year ending June 30, 1892.

	Name of institution. (I.)	Resources and liabilities.		
		Estimated value of prop- erty owned. (II.)	Outstanding debts. (III.)	Rate per cent in- terest. (IV.)
1	Central Dispensary and Emergency Hospital .....	\$72,657.97	\$15,000	6
2	Children's Hospital .....	256,395.00	28,000	5
3	Columbia Hospital for Women .....	300,000.00		
4	Eastern Dispensary .....			
5	Homeopathic Free Dispensary .....			
6	National Homeopathic Hospital .....	60,000.00	2,660	
7	Woman's Dispensary and Hospital .....			
8	Total .....	689,052.97	45,660	

	Name of institution. (I.)	Income from—					
		Balance. (V.)	From loans. (VI.)	Public funds. (VII.)	Endow- ments. (VIII.)	Pay in- mates. (IX.)	All other sources, subscrip- tions, do- nations, dues, etc. (X.)
1	Central Dispensary and Emergency Hospital .....	\$7,246.65	\$5,000.00	\$2,600			\$1,955.00
2	Children's Hospital .....	295.27		10,000	\$5,300.00		4,137.87
3	Columbia Hospital for Wo- men .....	2,920.47		20,000		\$4,444.40	
4	Eastern Dispensary .....		*16.81	450			827.17
5	Homeopathic Free Dispens- ary .....	351.24		560	41.50	63.13	914.87
6	National Homeopathic Hos- pital .....	141.23		9,000	1,000.00	5,988.49	3,735.47
7	Woman's Dispensary and Hospital .....	521.93		400		370.79	1,307.12
8	Total .....	11,476.79	5,016.81	43,010	6,341.50	10,866.81	12,877.50

	Name of institution. (I.)	Expenditures for—						
		Rent. (XII.)	Salaries. (XIII.)	All other forms of main- tenance, includ- ing re- pairs. (XIV.)	Perma- nent im- prove- ments, includ- ing pur- chase of real es- tate. (XV.)	Inter- est on debts. (XVI.)	Pay- ment of the prin- cipal of debts. (XVII.)	Total. (XVIII.)
1	Central Dispensary and Emergency Hospital .....	\$533.36	\$2,184.62	\$3,475.95	\$7,470.89	\$936.24		\$14,601.06
2	Children's Hospital .....		5,311.48	11,953.95		1,400.00		18,665.43
3	Columbia Hospital for Women .....		8,262.21	14,994.75				23,256.96
4	Eastern Dispensary .....	360.00	270.00	663.98				1,293.98
5	Homeopathic Free Dis- pensary .....	550.00	453.50	458.87	225.00			1,687.37
6	National Homeopathic Hospital .....		4,141.02	8,224.88	2,798.75	139.50	\$3,000.00	18,304.15
7	Woman's Dispensary and Hospital .....	300.00	144.00	1,779.16				2,223.16
8	Total .....	1,743.36	20,766.83	41,551.54	10,494.64	2,475.74	3,000.00	80,032.11

TABLE 3.—Finance report dispensaries and hospitals, etc.—Continued.

Name of institution. (I.)	Average annual cost per inmate to District government. (XX.)	Average annual cost per inmate to institution		Per cent of income less balances and earnings contributed by District government. (XXIII.)
		Gross. (XXI.)	Net. (XXII.)	
1 Central Dispensary and Emergency Hospital .....				57.1
2 Children's Hospital .....	\$140.55	\$242.66	\$242.66	51.4
3 Columbia Hospital for Women .....	373.62	434.47	351.44	100.0
4 Eastern Dispensary .....				35.2
5 Homeopathic Free Dispensary .....				36.9
6 National Homeopathic Hospital .....	331.52	455.51	234.92	65.5
7 Woman's Dispensary and Hospital .....				23.4
Average .....				58.8

\* Deficit.

TABLE 4.—Report of work in hospitals done during fiscal year ending June 30, 1892.

Name of institution. (I.)	Number of different persons cared for (II.)	Admitted. (III.)	Discharged.			Number of deaths. (VII.)	Daily average number of patients.		Largest number at one time. (X.)	Smallest number at one time. (XI.)	Surgical operations performed. (XIII.)
			Cured. (IV.)	Improved. (V.)	Unimproved. (VI.)		Free. (VIII.)	Pay. (IX.)			
1 Children's Hospital	307	238	166	40	17	30	71.15	.....	80	52	73
2 Columbia Hospital for Women .....	606	583	387	92	56	19	*53.53	.....	76	33	138
3 National Homeopathic Hospital....	345	328	202	72	22	14	15.10	12.05	45	2	59
4 Total .....	1,258	1,149	755	204	95	63	†151.83	.....	.....	.....	270

\* Including pay patients.

† Including pay patients from Columbia and National Homeopathic Hospitals.

Table No. 3 shows the receipts and expenditures of the hospitals and dispensaries of the District coming under the supervision of the superintendent of charities during the year ending June 30, 1892. Table No. 4 gives the work of the hospitals for the same period. It will be seen that they receive from the public funds \$43,010, from endowments \$6,341.50, from pay inmates \$10,866.81, and from contributions and subscriptions and sundry sources \$12,877.50. The per cent of income, less earnings, contributed by the District government was 58.8. The salaries paid by all the institutions amounted to \$20,766.83.

The number of different persons cared for by the three hospitals was 1,258. The daily average number of patients was 151.83. Surgical operations performed, 270.

*The Columbia Hospital for Women and Lying-in Asylum.*—The managing corporation of this institution was changed at the last session of Congress from a private to a public corporation, by the insertion in the appropriation bill of a proviso, that as vacancies occur among the trustees, other than members of Congress, they shall be filled by the District Commissioners. As the trustees hold for life this proviso does not at all effect the present incumbents, and will probably not practically change the character of the corporation for some time to come.



During the past year the income from pay patients amounted to \$4,444.40. This is a decided increase from the preceding year, when it was only \$2,574.71. This indicates an improvement in the estimation in which this hospital is held by that part of the public able to pay for accommodations and is in so far satisfactory. It may be doubted, however, whether or not the abolition of the pay-patient department would not result in a saving in the expenses of administration greater than the amount received from pay patients. But to receive pay patients at a low rate gives very satisfactory service to a class that needs hospital advantages, but could not properly ask for gratuitous service. The average cost of a patient at this hospital to the District government for the year was \$373.62. The gross cost per patient to the institution was \$434.47. The net cost \$351.44. This shows a marked falling off from the year before, when the gross cost per patient was \$636.50 and the net cost \$563.23. This results from an increased number of patients. The daily average for the last year was 53.53, whereas for the year before it had been only 35.14.

In an institution giving the very special and expensive service afforded by the Columbia Hospital it does not appear that the present annual cost per patient can be considered in any wise excessive.

On the maternity side the number of births was 260. There are many questions connected with the administration of the maternity work of great difficulty and which should receive the most careful consideration in order that the wisest thing may be done for illegitimate children and their mothers. It is proper in an institution like the Columbia Hospital, where it is desirable that the place should be a proper one for the wives of working men and others to go during confinement, that no woman should be received a second time who has not been married. The almshouse hospital might properly be the one to which delinquents should be referred at the second offense.

As the Columbia Hospital is now a public institution, its property owned by the Government and the managing board a public corporation, it is proper that its annual report should be printed in full, and will be found as I 5 in the appendix to the Commissioner's report.

I recommend the appropriation of the usual sum of \$20,000 for the use of this institution during the year ending June 30, 1894.

*The Children's Hospital.*—The tabulated facts regarding this institution will be found in Table 3, line 2, and Table 4, line 1. From this it appears that the Children's Hospital received from endowments \$5,300 and from subscriptions, donations, etc., \$4,137.87. The per cent of income, less balances and earnings contributed by the District government, was 51.4, a reduction from the preceding year, when it was 56 per cent. No pay patients are received. The daily average number of patients was 71.15. The largest number at one time, 80. Seventy-three surgical operations were performed. The cost to the District government for a year's service rendered to a single patient was \$140.55. The cost per patient to the institution was \$242.66.

There were 30 deaths in the institution during the year, a rather high rate of mortality, but not higher than is common in the hospitals for the young. It resulted in part from receiving children having certainly fatal diseases, such as consumption. The tendency of some hospitals to avoid receiving such cases is one not to be commended, as a hospital should be a comfortable place for the poor to die in as well as to be cured in. Therefore a high death rate, resulting from a willingness to receive patients when the prognosis is death, should in nowise prejudice the institution with an enlightened public.

Another cause contributing to the high mortality can not be so satisfactorily explained. This is the presence in the institution of contagious diseases, such as diphtheria and scarlet fever. While the hospital has good facilities for isolating this class of cases, yet their presence is always a hindrance to the best work. The only children refused admission during the year were such as came at times when the presence of contagious diseases made it unsafe to receive them. The experience of this institution adds another to the many proofs that have already accumulated of the great need that there is for a contagious diseases hospital in the District.

I recommend the usual appropriation of \$10,000 for the Children's Hospital.

*The National Homeopathic Hospital Association.*—The tabulated facts regarding this institution will be found in Table 3, line 6, and Table 4, line 3, and the accounts of its dispensary work in Table 5, line 6. From these tables it will be seen that the hospital provided for a daily average of 15.1 free patients and 12.05 pay patients. The amount realized from the pay patients' department was \$5,998.49. The cost to the District government of providing for one patient for one year in this institution was \$331.52. The gross cost to the institution for a patient for the year was \$455.51; the net cost to the benevolent \$234.92. The per cent of income, less earnings, contributed by the District government was 65.5, a very considerable decrease from the preceding year, when it was 83 per cent.

The improvements for which an appropriation was asked at the last session of Congress were made, although public aid was not granted as requested. These give the hospital much better facilities, especially for surgical work and for accommodating the pupil nurses resident in the institution.

I recommend an appropriation of \$7,000 for maintenance.

*The Central Dispensary and Emergency Hospital.*—The tabulated facts regarding this institution will be found in Table 3, line 1, and Table 5, line 1. It is, however, an institution whose work can not be as fully represented in a tabular statement as that of some of the others; especially is this true during the last year, when it has developed greatly and changed considerably. On the dispensary side it will be treated under the head of dispensaries. On the hospital side it has done much more than any previous year in caring for emergency cases. The purpose of this work for emergency cases is to furnish immediate help in cases of injury, accident, or any sudden illness which are brought to it at any time, day or night, and without any question as to the individual ability to pay or any other consideration. The only question is, does the person require immediate surgical or medical aid? During the past year 1,363 emergency cases were provided for. Seventy-three certificates were issued on request of Sanitary Officer Frank, 212 teeth were extracted, and other miscellaneous work done. Three deaths occurred during the year, one in thirty-six and two within twenty-four hours after admission. It is not the policy of the institution to retain any case longer than necessary in order to render the most efficient service in emergency. All cases are passed on as soon as possible to the hospitals that can most appropriately receive them. In some of its aspects the work of this department is closely analogous to that which in other cities is performed by the police department, or at least which is attended to at the police stations, and here the police department concurs with me in saying that the service rendered by the hospital is absolutely indispensable.



The new building at the corner of Fifteenth street and Ohio avenue has only been occupied during the last months of the fiscal year for which this report is made. It was anticipated that on entering the new building the expenses for maintenance would be greatly increased, and an appropriation of \$6,000 was asked of Congress, but only \$4,500 was granted. The result has been that for the expenses of moving and the expenses incident to the larger work done in the new building the trustees have been compelled to use up some of the money received from the sale of the old property, and even after expending their capital in this way there will be a deficiency at the end of the fiscal year. This does not result from the fact that the managers have been derelict in their efforts to obtain money from contributors, since the report shows that during the last fiscal year only 57.1 per cent of their income was received from the public funds as against 75 per cent for the year before. One item that has added considerably to the cost of operating the institution, and that will be a constant charge upon its revenue hereafter, is the maintenance of an emergency ambulance prepared to go at a moment's notice to the scene of any accident. This ambulance is equipped with all the necessary surgical appliances and a competent surgeon goes with it on each trip. This ambulance is at the call of any member of the police force, and supplements in a very satisfactory way the ambulance service provided by the Metropolitan police.

An itemized account of the expenditures incident to the economical operation of the hospital as it now stands indicates that it can not be managed on a public subvention of less than \$10,000 a year. It seems unnecessary here to insert this itemized statement of necessary expenditures, but it can be readily furnished either to the Commissioners or to the Congressional committees, if desired.

Besides the expenses of operation the hospital also has some expenses connected with its indebtedness. The sum of \$15,000 has been borrowed at 6 per cent interest. It seems inexpedient that this interest charge should remain a permanent draft upon the resources of the institution, but inasmuch as the District has already contributed more than \$40,000 for purposes of purchasing real estate and erecting the building it seems to be unjust that the debt should be paid by the District government unless the District government has the title to the property. To be sure the money which has been paid to the hospital for purposes of construction constitutes a lien upon the property which must be satisfied if that property is ever diverted to other purposes, but where the amount contributed by the Government is so large, and where the necessity of continued thorough coöperation between the institution and the public authorities is so imperative as in this case it is not unjust that the stipulation indicated should be made.

The private managers that have done so much to make this enterprise the useful and absolutely indispensable institution it now is, certainly deserve well of the community, and nothing should be done that would make them feel that the fruits of their labor was being arbitrarily appropriated by the Government; but some of them at least appreciate the force of the considerations urged, and are not averse to having the title of the property transferred to the District.

I recommend the following appropriations for the Central Dispensary and Emergency Hospital for the year ending June 30, 1894: For maintenance, \$10,000; for the payment of the debt, \$15,000, provided that the title to the real estate owned by the corporation shall be vested in the District in trust for the purposes of the hospital.



*The Freedmen's Hospital.*—As this is the first time that the Freedmen's Hospital has been estimated for by the District authorities, as the work for the last fiscal year was completed before it was known that this new arrangement was to be made, and as the hospital by previous legislation is under the Department of the Interior, no attempt is made in this report to give an account of its work. Neither have I tried in any manner to weigh the arguments for and against the estimates made by the surgeon in charge, Dr. C. B. Purvis. He understands the needs and work of the hospital as I can not, and I have therefore simply approved his estimates and leave the discussion of them until they come to be considered by the Congressional committee. By that time I hope to be more fully informed as to the institution and to be able to answer such questions as will suggest themselves in fixing the appropriations. The justice of charging this institution to the District revenues may be questioned. The class which it serves are those for whom the Federal Government might very properly provide, as it has done in years past, and I should think it proper that the institution be returned to the sundry civil bill, from which it was taken at the last session of Congress. If the institution is to remain chargeable to the District revenues its management should apparently be made a part of the District government.

In view of the foregoing considerations and in accordance with Dr. Purvis's statement of the needs of the Freedmen's Hospital, I recommend the appropriation of the following sums for the fiscal year ending June 30, 1894: For maintenance, \$54,525; for erecting a coal house, \$800; for erecting a new brick ward, \$30,000.

#### OUT-PATIENT WORK.

Table No. 5, submitted herewith, gives a view of the out-patient work in the city during the fiscal year ending June 30, 1892. This embraces no statement regarding the work of the physicians to the poor, an account of which will be found in the report of the health officer. The table shows that at the seven dispensaries, either operating independently or connected with hospitals under the supervision of the superintendent of charities, 17,823 cases were treated and some 64,247 prescriptions were filled. The account of the total number of visits by all patients to the several dispensaries was only kept during the last six months, but during this time there were 21,747 such visits. Somewhat more than two-thirds of the cases treated were colored. The separation into surgical and medical cases, called for by the table, is not of very great importance, and where a dispensary did not make this distinction, or made it imperfectly, all cases have been included under the head of medical. The total cost of dispensary work by itself can not be ascertained, as three of the dispensaries are operated in connection with hospitals and the accounts are not so kept that the items can be separated. The finances of the dispensaries working independently will be found in Table 3.

TABLE 5.—*Report of work done by dispensaries during fiscal year ending June 30, 1892.*

Name of institution. (L)		Surgical cases.				
		White.		Colored.		Total. (VI.)
		Male. (II.)	Female. (III.)	Male. (IV.)	Female. (V.)	
1	Central Dispensary and Emergency Hospital..	527	97	880	229	1,733
2	Children's Hospital.....	47	36	85	45	213
3	Columbia Hospital for Women .....					
4	Eastern Dispensary.....	11	16	40	87	154
5	Homeopathic Free Dispensary.....	16	11	22	16	65
6	National Homeopathic Hospital Association.....					
7	Woman's Dispensary and Hospital .....	27	77	84	408	596
8	Total .....	628	237	1,111	785	2,761

Name of institution.		Medical cases.				
		White.		Colored.		Total. (XI.)
		Male. (VII.)	Female. (VIII.)	Male. (IX.)	Female. (X.)	
1	Central Dispensary and Emergency Hospital..	592	602	1,148	1,826	4,168
2	Children's Hospital.....	476	380	1,108	916	2,880
3	Columbia Hospital for Women.....					
4	Eastern Dispensary .....	108	148	222	544	1,022
5	Homeopathic Free Dispensary.....	389	915	366	1,074	2,744
6	National Homeopathic Hospital Association.....					
7	Woman's Dispensary and Hospital .....	26	125	106	980	1,237
8	Total .....	1,591	2,170	2,950	5,340	12,051

Name of institution.		Total medical and surgical cases.			Total number of visits by all patients to dispensary (for 6 months). (XV.)	Prescriptions compounded. (XVI.)
		White. (XII.)	Colored. (XIII.)	White and colored. (XIV.)		
1	Central Dispensary and Emergency Hospital..	1,818	4,083	5,901	10,946	36,380
2	Children's Hospital.....	939	2,154	3,093	2,262	5,709
3	Columbia Hospital for Women .....	560	1,001	1,561	1,873	4,291
4	Eastern Dispensary.....	287	893	1,180	956	2,816
5	Homeopathic Free Dispensary.....	1,331	1,478	2,809	3,628	7,327
6	National Homeopathic Hospital Association ..	281	965	1,246	1,236	2,925
7	Woman's Dispensary and Hospital .....	255	1,578	1,833	846	4,790
8	Total .....	5,471	12,152	17,623	21,747	64,247

It has already been indicated that the volume of work done by a dispensary forms no just criterion of its public value, but in Washington we have no investigating agency that can be appealed to to inquire into the cases of applicants for medical relief. I had hoped that an arrangement might be made by which the work of the physicians to the poor could be consolidated with that of the dispensaries. The results I had hoped would be to save a good deal of duplicate work and to give the management of the dispensaries an opportunity to find out more about those who applied to them for treatment than is now possible. The Central Dispensary offered to provide an additional resident physician, who, in return for the privilege of residing at the dispensary, should do the work of two physicians to the poor in the adjacent districts. The additional cost to the dispensary of such a course would only have been about \$300 a year, and a suitable man offered himself for the work. This would have resulted in the saving



to the District of \$660 per year, and had similar arrangements with other institutions been made the saving might have been proportionately large; but the opposition of the health officer and the delay of the Commissioners in deciding the matter permitted the opportunity to pass by, and the experiment was not tried.

*The Central Dispensary.*—This institution last year treated in its dispensary work a total of 5,901 cases, as against 6,939 the year before. The falling off resulted in part from the disorganization which attended moving to rented quarters and then to the new building. The number of prescriptions the last year was 36,380, as against 31,758 the year before.

*The Eastern Dispensary.*—Total number of cases treated 1,180, as against 1,004 the previous year, and 2,816 prescriptions as against 2,915 the year before. This dispensary attempts to consider more carefully than other institutions the capacity of the applicant to pay for treatment, and those found able are not treated gratis.

*The Lenman Homeopathic Dispensary and Emergency Hospital.*—This is the institution which last year appeared under the name of the Homeopathic Free Dispensary. It is now located on Massachusetts avenue and K street, in a new building well adapted for the purpose it is designed to serve. The building has been paid for by the issuing of bonds, which constitute a mortgage indebtedness upon the property. Last year an earnest application was made for money to aid in the erection of this building and its equipment, but it seemed to me then, as it does now, that the interests of the District would be better served by supporting with entire adequacy one emergency hospital and fitting it fully for its work than by subsidizing two struggling institutions. The number of cases treated at this institution the last year was 2,809, as against 2,504 the year before, although its work was much interfered with by moving from old quarters to new. The number of prescriptions during the past year was 7,327, as against 6,469 the year previous.

*The Woman's Dispensary.*—This also is a dispensary that is gradually developing into a hospital, notwithstanding the fact that no public aid was recommended or granted to facilitate this development. The hospital side of the work has been carried on quite successfully during part of the fiscal year for which this report is made. The finances of the dispensary, so far as they can be separated from the hospital department, can be found in Table 3, line 7, and the account of the work done in Table 5, line 7. The per cent of income less earnings contributed by the District was only 23.4. This is the one institution where a small charge is made for the medicines. Those connected with the dispensary think that the patients value the service more, indeed profit by it more, if they pay something in return for it. The number of cases treated was 1,853, and the number of prescriptions 4,799, as against 1,609 cases and 4,134 prescriptions for the preceding year.

#### FUND FOR THE RELIEF OF THE POOR.

The manner in which this fund was apportioned by the Commissioners during the fiscal year for which this report is made is indicated below. The independent dispensaries receive nothing except through this fund, and from it are also paid the physicians to the poor and the corporation druggists. The appropriation for the current year amounts only to \$14,000, but, inasmuch as the Central Dispensary is given an appropriation in its own name, this amount has been sufficient to permit a slight increase of the subsidies given the dispensaries.



The action of the Commissioners, based partly upon my recommendations, and partly upon recommendations made by other District officials, resulted in the following use of this fund:

Physicians to the poor .....	\$7, 200
Medicines for the poor and printing prescriptions .....	3, 700
Central Dispensary and Emergency Hospital .....	2, 400
Homœopathic Dispensary .....	430
Eastern Dispensary .....	450
Woman's Dispensary .....	400
Aged Women's Home .....	300
Mission School for Cookery .....	100
Associated Charities .....	250
Home for Incurables (special) .....	50
Women's Union Chistian Association .....	300
Department of the Metropolitan Police (to distribute to the poor) .....	400
Total .....	16, 000

Inasmuch as the physicians to the poor are a part of the Department of the Health Office, and it is not well to have one municipal officer making suggestions about another officer's department, I should prefer that a specific appropriation be made for these physicians, and I be no longer asked to assume the responsibility of estimating for them. However, the matter is of no very great importance, and I recommend the same appropriation as for the current year, viz:

For the relief of the poor, \$14,000.

#### A CONTAGIOUS DISEASES HOSPITAL.

In my last report I said that the next important addition that should be made to the system of medical charities in the District was a hospital for the treatment of contagious diseases. During the first session of the Fifty-second Congress there was officially referred to me a proposed item for the sundry civil bill which appropriated \$31,000 for the Daisy Chain Hospital in the District of Columbia, and my hearty approval was given to the insertion of this item. It was approved by the Senate, but thrown out in conference.

In preparing this present report, I asked the Commissioners if they wished me to estimate for a contagious diseases hospital, or if they thought this a matter that should be left to the Health Officer. They decided that it was a matter in which the Health Officer should take the initiative. In some way or other, and that soon, such an institution should be provided for.

CHILD-SAVING WORK IN THE DISTRICT.

Table No. 6 gives the result of a census of the institutions for children receiving District subsidies. The date when the census was taken at each institution is given in the first column of the following table:

TABLE 6.—Population of institutions for children, including industrial and reformatory.

Name of institution.		Date of census.	Total number of children.	Inmates.				
				Children.				
				Birthplace.		On whose request admitted.		
				District of Columbia.	Not in District of Columbia.	From other institutions.	Public official.	Relative. Others.
1	Church Orphanage of St. John's Parish.....	7-19-'92	84	55	15	14	8	31 25
2	German Orphan Asylum.....	6- 2-'92	42	27	13	.....	15	22 2
3	National Association for Relief of Destitute Colored Women and Children.	6-30-'92	118	77	27	22	24	63 8
4	National Association for Care of Colored Foundlings.	7- 6-'92	17	16	.....	1	2	14 .....
5	St. Ann's Orphan Asylum.....	7-29-'92	88	79	9	2	4	70 12
6	Washington Hospital for Foundlings.....	7-29-'92	13	10	1	.....	2	6 4
7	Home for Friendless Colored Girls.....	7-11-'92	7	6	1	.....	1	0 .....
8	Association for Works of Mercy.....	7-11-'92	19	10	10	6	1	10 4
9	House of the Good Shepherd.....	7-13-'92	55	49	13	7	22	27 12
10	Industrial Home School.....	7-14-'92	98	69	26	7	36	14 32
11	St. Rose's Industrial School.....	7-28-'92	70	31	41	*59	.....	0 4
Total.....			611	429	156	118	115	272 103

1891/92

Name of institution.		Inmates.										
		Children.										
		Age.					Length of time in institution.					
		Under 1 year.	1 to 3 years.	4 to 8 years.	9 to 14 years.	15 to 21 years.	1 year or less.	2 years.	3 years.	4 years.	5 years.	Over 5 years.
1	Church Orphanage of St. John's Parish.....	.....	1	34	42	7	20	12	14	8	10	20
2	German Orphan Asylum.....	.....	1	21	16	4	18	0	2	2	4	7
3	National Association for relief of Destitute Colored Women and Children.	.....	3	53	60	1	33	22	21	13	8	21
4	National Association for Care of Colored Foundlings.	10	6	1	.....	.....	16	1	.....	.....	.....	.....
5	St. Ann's Orphan Asylum.....	16	21	47	4	.....	34	20	10	7	6	11
6	Washington Hospital for Foundlings.....	6	7	.....	.....	.....	8	5	.....	.....	.....	.....
7	Home for Friendless Colored Girls.....	.....	1	4	2	.....	6	.....	.....	1	.....	.....
8	Association for Works of Mercy.....	.....	.....	5	15	35	13	4	.....	1	1	.....
9	House of the Good Shepherd.....	.....	.....	29	08	2	32	11	4	4	2	2
	Industrial Home School.....	.....	.....	.....	.....	.....	33	34	12	7	8	4
	St. Rose's Industrial School.....	.....	.....	.....	3	67	12	14	20	11	7	6
	Total .....	32	40	194	216	129	225	132	83	54	46	71

\* From other institutions in the District, 20; from other institutions outside of the District, 39.

TABLE 6.—Population of institutions for children, etc.—Continued.

Name of institution.	Inmates.			Employees boarded and lodged during the year.	Persons wholly supported in return for services.
	Over 21 years of age.				
	Number.	Average age.	Average length of time in institution.		
1 Church Orphanage of St. John's Parish.....				6	1
2 man Orphan Asylum.....				2	
3 National Association for relief of Destitute Colored Women and Children.	10	79.1	5.04	9	
4 National Association for Care of Colored Foundlings.				7	
5 St. Ann's Orphan Asylum.....	5			10	11
6 Washington Hospital for Foundlings.....				12	
7 Woman's Union Christian Association.....				1	
8 Association for Works of Mercy.....	2	31	3	4	1
9 House of the Good Shepherd.....	13	29.66	4.53	2	13
10 Industrial Home School.....				12	
11 St. Rose's Industrial School.....	2	34.5	4.5	2	10
Total .....	32			67	36

It will be seen that the census was taken during midsummer, directly after many of the children had been placed out and before the institutions had filled up again, as they do in the fall, yet the number of dependent children was shown to be 611, of which 429 were born in the District, 156 outside the District, and of the remainder the place of birth was unknown. This does not show a larger proportion of births outside the city in which the institutions are located than in corresponding institutions of other cities. The most direct example of importation from outside the District was at St. Rose's Industrial School, where 39 out of a total of 70 have been received from institutions outside the District.

It will be noticed that only 115 have been received at the request of the public officials, either the officer of the Humane Society or any other person connected with the police force or the courts; 272 were admitted on the request of relatives, usually the parents, and 103 on the request of other persons, charitably interested in the cases. Considering the children by ages, we find 32 to have been under 1 year of age, 40 between 1 and 3, 194 between 4 and 8, 216 between 9 and 14, and 129 between 15 and 21 years. A census taken at a different time of year would doubtless have shown a larger per cent of children under 1 year of age, as the death rate among this class had been very high during the hot weather of the preceding June. Forty-six of the children have been in the institutions five years, and 71 have been in the same institution over five years. As 118 had come to the institution in which they were found from some other institution, it seems likely that a considerable number of the children in the District remain in the institutions for longer periods than five years. It should not be forgotten that five years or more of institution life is a dangerous experience, threatening the habits of independence and the energy of the child thus confined within brick walls or narrow play grounds, and compelled to associate with others who have probably inherited like independent instincts with himself.

In the institutions for children there were 32 persons over 21 years of age being cared for at the time the census was taken. These were in part aged dependents cared for as a branch of work distinct from



that for the children, and in part they were women at the House of Mercy, at the House of the Good Shepherd, or St. Rose's Industrial School, who seemed to need custodial care and the protection which institution life affords. There were in the eleven institutions 67 salaried employes boarded and lodged during the year, and 36 persons, Sisters and others, entirely supported in return for their services, but receiving no personal salary.

To some it might seem that more than a hundred workers for taking care of about 600 children was a large number. It will be noticed that the proportion of attendants is especially large in those institutions which care for very young children, and it is well known to those acquainted with such matters that the ratio of attendants to beneficiaries must necessarily be large in these cases. In visiting the institutions and becoming somewhat acquainted with the personnel of the house staff, I have been struck by the large service that is frequently rendered for small pay. Both on the part of those who receive salaries and those who do not there is a great measure of personal self-sacrifice.

The census of the several institutions was taken by the superintendent in person, and in many cases he saw and talked with each child. A card was filled out for each case, and these are on file at the superintendent's office, so that if hereafter it is desirable to recombine the facts in some new way, the original data are at hand for doing so. Some of the facts learned and recorded on these case cards it would be improper to give in a printed report, at least in any way that would make it possible to identify the institutions referred to; but it is proper enough to give some additional totals. Of the 611 children, 32 were afflicted with some nervous trouble, epilepsy, paralysis, or some grade of feeble-mindedness, ranging all the way from idiocy up to those described simply as "very dull." None are included in this number (32) except those who had some marked mental defect or nervous disease. Besides these, 92 of the children were markedly defective or diseased. Not many cripples were found, but many afflicted with severe forms of scrofula and other varieties of practicably incurable blood poisoning. Thus it will be seen that 1 out of 6 of the children in our institutions is unwell mentally or physically. This, of course, does not include those that are suffering from such ailments common to institution life, as mild skin disease, sore eyes, etc. It should be said that the institutions are for the most part in nowise responsible for the sickly condition of the children, but that, on the other hand, the tendency of a family to sickness is often responsible for the dependency of a child. The largest proportion of feeble-minded or nervously diseased cases is apt to appear in institutions for wayward girls.

An inquiry was made regarding the parentage of the children, but the returns were not sufficiently complete to make it worth while to tabulate them. It was ascertained that in some of the institutions the parents of more than half the children were one or both of them of distinctly bad character. Many of the children of drunken parents were described as "not up to par," though it could not be said that they were physically or mentally diseased.

#### SUBSIDIZED INSTITUTIONS FOR CHILDREN.

In Table 7 is found a statement of the financial operations of institutions for children other than reformatory or industrial for the fiscal year ending June 30, 1892. In Table 8 the facts are given for the re-

formatory and industrial institutions. Tables 9 and 10 give some account of the work of these institutions for the same year. In the institutions for children it will be seen that the average cost of an inmate to the District government for one year was \$82.34; the gross cost to the institution was \$98.68; the net cost to the institution was \$93.51. The per cent of income, less balances, earnings, and loans contributed by the District government was \$68.05. In some of the institutions the cost per annum seems to be abnormally low, a fact usually explained by the receipt of many contributions in kind which do not appear in the treasurer's book.

TABLE 7.—*Finance report of institutions for children for fiscal year ending June 30, 1892.*

Name of institution. (I.)		Resources and liabilities.		
		Estimated value of prop- erty owned. (II.)	Outstanding debts. (III.)	Per cent of interest. (IV.)
1	Church Orphanage of St. John's Parish .....	\$50,000	\$7,500	0
2	German Orphan Asylum .....	60,600	.....	.....
3	Home for Friendless Colored Girls .....	.....	.....	.....
4	National Association for Relief of Destitute Colored Women and Children .....	50,000	.....	.....
5	Home for Colored Foundlings .....	.....	.....	.....
6	St. Ann's Infant Orphan Asylum .....	150,000	.....	.....
7	Washington Hospital for Foundlings .....	86,330	.....	.....
Total .....		396,930	7,500	.....

Name of institution.	Income from—					
	Balance. (V.)	From loans. (VI.)	Public funds. (VII.)	Endow- ments. (VIII.)	Pay in- mates or work of inmates. (IX.)	All other sources, subscrip- tions, do- nations, dues, etc. (X.)
1	Church Orphanage of St. John's Parish .....	\$3,655.74	\$4,500.00	\$2,500.00	\$922.76	\$0,138.39
2	German Orphan Asylum ...	1,269.19	.....	6,000.00	150.00	4,708.76
3	Home for Friendless Col- ored Girls .....	.....	.....	320.00	49.25	256.38
4	National Association for Re- lief of Destitute Colored Women and Children .....	.....	.....	10,000.00	.....	.....
5	Home for Colored Found- lings .....	.....	652.66	*2,000.00	26.00	.....
6	St. Ann's Infant Orphan Asylum .....	50.00	650.00	7,079.17	531.31	1,003.50
7	Washington Hospital for Foundlings .....	1,237.08	.....	6,000.00	.....	1,380.23
Total .....		6,212.01	5,802.66	33,899.17	1,604.07	13,985.26

\*Overdraft from funds from National Association for Relief of Destitute Colored Women and Children.

TABLE 7.—Finance report of institutions for children, etc.—Continued.

Name of institution.	Expenditures for—							
	Rent. (XII.)	Salaries. (XIII.)	All other forms of main- tenance, includ- ing re- pairs. (XIV.)	Perma- nent improve- ments in- cluding purchase of real estate. (XV.)	Inter- est on debts. (XVI.)	Pay- ment of the prin- cipal of debts. (XVII.)	Total. (XVIII.)	Balance. (XIX.)
1 Church Orphanage of St. John's Parish .....		\$1,625.00	\$3,298.60	\$8,784.89	\$295.96	2,000.00	\$16,004.45	\$1,712.44
2 German Orphan Asylum .....		1,236.90	5,104.18	1,881.60			8,222.68	3,955.27
3 Home for Friendless Col- ored Girls .....	\$75.00	110.00	242.18			185.17	612.35	13.28
4 National Association for Relief of Destitute Col- ored Women and Chil- dren .....		2,815.32	6,217.01	315.00			9,347.33	*652.67
5 Home for Colored Found- lings .....	420.00	987.89	1,270.77				2,678.66	
6 St. Ann's Infant Orphan Asylum .....		3,574.52	6,700.93		500.00		10,775.45	40.03
7 Washington Hospital for Foundlings .....		2,988.52	3,956.45	536.51			7,481.48	1,135.83
Total .....	495.00	13,338.15	26,790.12	11,518.00	795.96	2,185.17	55,122.40	7,509.52

Name of institution.	Average an- nual cost per inmate to District gov- ernment. (XX.)	Average annual cost per inmate to institution.		Per cent of income, less bal- ances and earnings contributed by District govern- ment. (XXIII.)
		Gross. (XXI.)	Net. (XXII.)	
1 Church Orphanage of St. John's Parish....	\$29.94	\$58.97	\$58.97	26.2
2 German Orphan Asylum .....	137.93	145.77	144.62	55.3
3 Home for Friendless Colored Girls .....	27.23	36.36	32.16	55.5
4 National Association for Relief of Destitute Colored Women and Children .....	79.32	71.65	71.65	100
5 Home for Colored Foundlings .....	126.82	169.85	168.21	100
6 St. Ann's Infant Orphan Asylum .....	67.65	98.18	88.59	77.7
7 Washington Hospital for Foundlings .....	226.91	262.65	262.65	81.3
Total .....	82.34	98.68	93.51	68.5

\* Advanced to Colored Foundling Home in excess of the appropriations for that branch of the work. No real balance for this institution.



## 186 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE 8.—Finance report of industrial reformatory institutions for fiscal year ending June 30, 1892.

Name of institution. (I.)		Resources and liabilities.		
		Estimated value of property owned. (II.)	Outstanding debts. (III.)	Per cent of interest. (IV.)
1	House of Mercy.....	\$24,000		
2	House of the Good Shepherd.....	60,000	\$25,000	5
3	Industrial Home School.....	100,000		
4	St. Rose's Industrial School.....	114,000	62,000	
Total.....		298,000	87,000	

Name of institution. (I.)		Income from—				
		Balance. (V.)	Public funds. (VI.)	Endowments. (VII.)	Pay inmates or work of inmates. (VIII.)	All other sources, subscriptions, donations, dues, etc. (IX.)
1	House of Mercy.....		\$3,000.00	\$25	\$145.70	\$874.39
2	House of the Good Shepherd.....	\$101.04	3,096.74		2,631.14	729.47
3	Industrial Home School.....	86.87	11,500.00		979.70	28.00
4	St. Rose's Industrial School.....	1,881.78	2,500.00		3,500.00	600.00
Total.....		2,069.69	20,096.74	25	7,256.54	2,231.86

Name of institution. (I.)		Expenditures for—				
		Salaries. (XI.)	All other forms of maintenance, including repairs. (XII.)	Permanent improvements, including purchase of real estate. (XIII.)	Interest on debts. (XIV.)	Total. (XV.)
1	House of Mercy.....	\$642.87	\$2,290.40			\$2,933.27
2	House of the Good Shepherd.....		5,289.22		\$1,250.00	6,539.22
3	Industrial Home School.....	4,466.88	7,973.72			12,440.60
4	St. Rose's Industrial School.....	956.00	7,144.32	\$190.88	139.58	8,430.78
Total.....		6,065.75	22,697.66	190.88	1,389.58	30,343.87

Name of institution. (I.)		Average annual cost per inmate to District government. (XVII.)	Average annual cost per inmate to institution.		Per cent of income less balances and earnings contributed by District government. (XX.)
			Gross. (XVIII.)	Net. (XIX.)	
1	House of Mercy.....	\$144.58	\$141.36	\$134.34	76.97
2	House of the Good Shepherd.....	56.56	96.61	48.55	80.97
3	Industrial Home School.....	114.54	123.91	114.15	89.87
4	St. Rose's Industrial School.....	30.49	98.78	56.10	80.6
Total.....		77.92	111.53	83.39	89.9

\* Balance, \$24.47 less than reported; deduced from report of income and expenditures.

TABLE 9.—Report of work done in institutions for children during fiscal year ending June 30, 1892.

	Name of institution. (I.)	Daily average num- ber of inmates. (II.)	Largest num- ber at one time. (III.)	Small- est num- ber at one time. (IV.)	Num- ber of differ- ent persons cared for. (V.)	Num- ber re- fused admis- sion. (VI.)	Num- ber ad- mitted. (VII.)	Num- ber of deaths. (VIII.)
1	Church Orphanage of St. John's Parish.....	83.5	86	81	97	.....	12	.....
2	German Orphan Asylum.....	43.5	47	41	53	.....	16	.....
3	Home for Friendless Colored Girls.....	11.75	16	5	21	.....	16	.....
4	National Association for Relief of Desti- tute Colored Women and Children....	126.07	133	118	145	1	29	4
5	Home for Colored Foundlings.....	15.77	23	13	64	8	52	37
6	St. Ann's Infant Orphan Asylum.....	104.65	115	75	212	8	128	78
7	Washington Hospital for Foundlings...	26.44	42	17	105	5	73	66
8	Total .....	411.68	.....	.....	697	22	326	185

	Name of institution. (I.)	Number leaving the institution.				
		Placed in another institu- tion. (IX.)	Given to relatives or friends. (X.)	Inden- tured, ap- prenticed, or situa- tion pro- vided. (XI.)	Adopted. (XII.)	Total. (XIII.)
1	Church Orphanage of St. John's Parish .....	4	11	.....	.....	15
2	German Orphan Asylum .....	.....	7	3	.....	10
3	Home for Friendless Colored Girls .....	.....	1	2	5	8
4	National Association for Relief of Destitute Colored Women and Children.....	1	10	10	1	22
5	Home for Colored Foundlings .....	1	5	.....	4	10
6	St. Ann's Infant Orphan Asylum.....	10	39	.....	8	52
7	Washington Hospital for Foundlings.....	1	4	.....	11	16
	Total .....	17	77	15	24	133

TABLE 10.—Report of work done in industrial and reformatory institutions during the fiscal year ending June 30, 1892.

	Name of institution. (I.)	Daily average number of in- mates. (II.)	Largest number at one time. (III.)	Small- est number at one time. (IV.)	Num- ber of differ- ent per- sons cared for. (V.)	Num- ber re- fused accom- moda- tions. (VI.)	Num- ber ad- mitted. (VII.)	Num- ber of deaths. (VIII.)
1	Association for Works of Mercy.....	20.75	25	17	40	2	16	.....
2	House of the Good Shepherd .....	54.75	64	47	93	1	44	1
3	Industrial Home School .....	100.4	103	100	155	21	45	1
4	St. Rose's Industrial School .....	82	92	72	106	27	21	.....
	Total .....	257.9	.....	.....	394	51	126	2

	Name of institution. (I.)	Number leaving the institution.				
		Placed in another institu- tion. (IX.)	Given to relatives or friends. (X.)	Escaped. (XI.)	Inden- tured, ap- prenticed, or situa- tion pro- vided. (XII.)	Total. (XIII.)
1	Association for Works of Mercy.....	1	7	2	2	12
2	House of the Good Shepherd.....	3	14	3	4	24
3	Industrial Home School .....	8	25	6	20	54
4	St. Rose's Industrial School .....	5	8	.....	13	26
	Total .....	12	54	11	39	116

From Table 9 it appears that the daily average number of inmates in the institutions for children was 411.68 and the number of different children cared for during the year was 697. The number admitted during the year was 326; the number who were placed in other institutions, 17; the number returned to relatives or friends, 77; the number indentured, apprenticed, or bound out was 15; the number given in adoption was 24; making a total of departures of 133. The number of deaths during the same time was 185, showing that of the whole number of children who left the several institutions during the fiscal year considerably more than one-half departed by the gate of death. An examination of the table, however, shows that this high proportion of deaths to departures is due entirely to the influence of the three institutions that care for destitute infants. In these the number of children that died was nearly three times the number otherwise disposed of, and were we to eliminate the number returned to relatives or friends, and therefore presumably only received for a short time, the proportion would be still more striking.

In the industrial institutions and in all those caring only for children over 3 years of age the death rate is very low. In some of the institutions there are no deaths at all during the year and very little serious illness. This agrees with the experience of other States. Indeed, it is probably true that the mortality among institution children between the ages of 3 and 16 is considerably lower than among children of the same age in ordinary life.

In the industrial and reformatory institutions the average annual cost per inmate to the District Government was \$77.92; the average gross cost to the institution \$111.53, and the average net cost to the institution \$83.39. The per cent of income, less balances and earnings contributed by the District government, was 89.9. The daily average number of inmates was 257.9; the number of different persons cared for was 296; the number admitted, 126; the number of deaths but 2. Of the 116 who left these institutions 12 were placed in other institutions, 54 were returned to relatives or friends, 11 escaped, and 39 were indentured, apprenticed, or situations found for them.

The question is constantly recurring how far an industrial school should undertake to derive a profit from the work of its inmates. It is said on the one hand that the education of the inmates is the primary consideration and that their powers and capacities should be developed as fully as possible, without regard to the market value of the product. On the other hand, it is urged that the best way to teach the young to work is to give them work that needs doing, and so make them feel that they are helping to earn their support. The question is one that each manager of an institution must solve in his or her own way, having regard to the class of dependents cared for. It is possible so to direct useful work as to make it of great educational value to the worker, and it is possible to putter around at what is called manual training without any adequate returns, either in the value of product or development of the child. Manifestly the welfare of the child should be the primary consideration, but sometimes this is best served by keeping him steadily at work in a manner profitable to the institution.

The appropriations necessary to care for the dependent children of the District will this year be placed to the credit of the Board of Children's Guardians, before whom the several institutions will appear as contractors. It is not, therefore, necessary that hereafter the names of these private institutions should appear in the annual appropriation



bills, and my recommendations this year will be shaped in accordance with the new condition of things.

It does not seem advisable to repeat from last year's report the description of the location, character, and purpose of the various institutions, but only to give a running account of their work for the year, mainly as it appears in the tabular statements.

*The Church Orphanage of St. John's Parish.*—The facts regarding this institution will be found in line 1, of tables 6, 7, and 9. During the year it had a daily average of 83.5 inmates, and cared for 97 different children. All those that went out from it were either placed in other institutions or returned to relatives. These figures indicate a comparatively long institution life for the children cared for at the orphanage. The difficulty of satisfactorily placing them has been found great, especially in the case of boys at the age when they necessarily leave the institution. The per cent of income contributed by the District government was only 26.2, and the average cost per inmate only \$58.97. These facts indicate that the managers are capable and generous people, and that the sister in charge has unusual faculty for economical administration. That the economy does not result from parsimony which interferes with the proper care of the children, is shown by the uniform healthfulness of the institution, and its freedom from any deaths whatever during a series of years. A farm in Virginia, to which the children are sent during the summer, adds much to the healthfulness of the institution. Large improvements through additions to the playground and the reconstruction of buildings previously occupied were made during the year, and this without public assistance. I should have been glad if Congress had seen fit to grant a somewhat larger subsidy for the current year than was in fact allowed, but the burden entailed by the improvements have been cheerfully assumed by the managers, and they will no doubt be able also to provide for the institution without more help than that actually granted.

*German Orphan Asylum.*—The tabulated facts regarding this institution will be found in line 2 of tables 6, 7, and 9. This institution cared for a daily average of 43.5 children and for 53 different children during the year. Of those leaving during the year several were returned to relatives or friends, and 3 were sent to situations that had been found for them. The personnel of the house management was changed during the year, and serious difficulties in securing an adequate water supply were overcome. From Table 6 it will be seen that a considerable number of children have been in the institution more than five years. The per cent of income contributed by the District government was 55.3, and the average annual cost per inmate for the institution was \$145.77. All contributions in kind have been carefully estimated, and included in maintenance. It has been found by the managers that the rural location, while an excellent thing for the children, entails some expenses not incident to the operation of an institution in the city.

*The National Association for the Relief of Destitute Colored Women and Children.*—The tabulated facts regarding this institution will be found in line 3 of table 6, and line 4 of tables 7 and 9. During the year it has cared for a daily average of 126.7, and for 145 different children. Of the 22 leaving the institution there were 10 returned to relatives or friends and 10 sent to situations that had been found for them. The institution is supported entirely by public money. The average annual cost per inmate is \$71.65.

There were 4 deaths at the institution during the year, and it is

feared that a pond of stagnant water only a short distance from the house will seriously interfere with the healthfulness of the institution if the nuisance is not abated. Either new furnaces or steam-heating apparatus is needed, and water must be obtained from the city main before very long. The present method of pumping from wells under the building is entirely unsatisfactory. I had expected to receive estimates of the cost of these necessary improvements and to ask Congress to appropriate what is necessary, but such estimates have not been furnished me at the time of writing this report.

At the close of the fiscal year for which this report is made the Misses Heacock who have given to the institution twenty years of faithful service as matron and assistant matron resigned.

*Home for Colored Foundlings.*—This institution is managed by a committee of the National Association for the Relief of Destitute Colored Women and Children. During the fiscal year ending June 30, 1892, the amount, \$2,000, which had been appropriated for this branch of the work was inadequate, and \$652.07 was used of the money appropriated for the older institution. During the current year Congress has made a more liberal allowance for the Foundling Home and it will probably not have to trench upon the revenues of the Orphan's Home. The tabulated facts regarding it will be found in line 4, Table 6, line 5, Table 7, and line 5, Table 9. It is supported entirely by public money. The average annual cost per inmate is \$169.85. The death rate among colored foundlings is abnormally high, being 37 out of an average daily population of 15.77. Only 10 children during the last year left the institution otherwise than by death, and of these 1 was placed in another institution, 5 were returned to relatives or friends, and 4 were given in adoption. No children over 3 years of age are cared for in this home. After careful inquiry I do not find that the death rate is higher than is inevitable in an institution caring for exactly this class.

*St. Ann's Infant Orphan Asylum.*—The tabulated facts regarding this institution will be found in line 5, Table 6, line 6, Table 7, and line 6, Table 9. Seventy-seven and seven-tenths per cent of its income is derived from public funds. The average annual cost per inmate to the institution is \$98.18. The average number of children cared for during the year has been 104.65. The number of different children cared for 212. There have been 78 deaths in the institution; 10 children were placed in other institutions, 39 were returned to relatives or friends, and 3 were given in adoption. The small addition to the appropriation which I asked in order to enable the sisters to pay somewhat more than at present for wet nurses was not granted, and the sisters were compelled to borrow a small amount to meet the expenses of the year. The work of this institution as a maternity hospital is not represented in the tables, but the number of births for the year was 22.

*The Washington Hospital for Foundlings.*—(See Table 6, line 6; Table 7, line 7, and Table 9, line 7.) Of the income of this institution the District government contributes 81.3 per cent. The average cost per inmate per year is \$262.65. The census taken in July showed that all the children then present in the institution were under 3 years of age. This being so, one acquainted with such matters could at once predict the high death rate. As a matter of fact there were sixty-six deaths during the year, with an average number of inmates of 36.44 and 105 different children cared for. Of those leaving the institution otherwise than by death, 1 was placed in another institution, 4 were returned to relatives or friends, and 11 given in adoption. The large number for whom adoptive homes were found speaks well for the zeal of the managers in



this department of their work. About the only chance for saving an abandoned infant is to place it by adoption or otherwise in some home where it will be cared for as a child of the family.

*The Women's Union Christian Association, managing a home for friendless girls.*—This institution, which appears in these reports for the first time, is located on Erie street, corner of Seventeenth. It is managed by a private corporation of colored women, and first received public aid during the fiscal year ending June 30, 1892, by an apportionment made by the Commissioners from the fund of \$16,000 placed at their disposal for the relief of the poor. The facts regarding it are given in Table 6, line 7, and Table 7, line 3, and Table 9, line 3. The allotment of \$320 was made to this institution on my recommendation in view of the fact that it frequently received children from the almshouse or from the officer of the Humane Society. The number cared for is small, averaging only 11.75, but the number of different children cared during the year was 21, indicating a commendable tendency to find as soon as possible places for the girls where they can earn an independent living. Five of the girls were given in adoption, 2 were sent to situations, and only 1 was returned to relatives. The per cent of the income of this institution contributed by the District was 55.5. The cost per annum per inmate is given as only \$36.36, but this can be explained only by remembering that many contributions in kind do not appear on the books of the treasurer.

*St. Joseph Male Orphan Asylum* has an appropriation for the current fiscal year, but as it had none for the year for which this report is made no account of its operations is here given. *The Newsboys' and Children's Aid Society* has also received a small amount through the Commissioners from the fund for the relief of the poor, but only for the current fiscal year.

*The House of Mercy.*—(See Table 6, line 8, Table 8, line 1, and Table 10, line 1.) To this institution the District contributes 76.9 of the income. The average cost per inmate per annum to the institution is \$141.36. During the year the daily average number of inmates was 20.75 and the number of different persons cared for was 40. Of those who left, 1 was placed in another institution, 7 were returned to relatives or friends, 2 were sent to private homes or situations, and 2 escaped. Plans for the development of this institution are now being carried forward by private enterprise, it being intended to enlarge the accommodations of the house and to establish a laundry in one of the buildings on the ground.

As indicated in the last report, the work of this institution is now largely preventive. It has not been found possible to secure very much profitable work from the class of girls and young women received there. Even when there is no marked sickness there is often the lack of physical vigor and an undervitalization which makes steady work on the part of the inmate impossible.

It has seemed to me, though it is a view in which the managers in nowise concur, that this institution is not benefited by the money it receives from public appropriations. There is a work which can be done by a small and homelike institution especially fitted to benefit the class of wayward and immoral young women which this home seeks to reach. But such an institution can not make a report which will compare well, as to the numbers of those cared for and as to cost, with larger and more mechanically managed institutions. Therefore, when public money is appealed for, there is a constant temptation to get away from the more unpretentious but more useful forms of work which can



only be carried on in a small institution. It can not be too often repeated that there are many things which a small private association working independently of any official interference can do that are above and beyond anything that can be accomplished by public or semi-public institutions. In this case, as in all others, I believe that the new relations to be established between the public and private agencies by the creation of the Board of Children's Guardians will be of distinct advantage to the private institution.

*The House of the Good Shepherd.*—(See Table 6, line 9, Table 8, line 2, and Table 10, line 2.) A glance at Table 5 will show that this institution, established primarily for fallen women, is in part changing its purpose and doing the work of an ordinary orphan asylum. Of the 68 inmates, 5 are under 8 years of age, and 15 are between 8 and 14 years of age. As a matter of fact, 19 of the inmates belong to what is known as the preservation class, while the remainder belong to the class known as the penitents. The two classes are kept separate and distinct. It is doubtful if orphan-asylum work can properly be undertaken by an institution of this class, and it is to be feared that desire to have the institution entirely full is a partial explanation of the receiving of very young children.

During the last session of Congress a very liberal offer was made on behalf of this institution. It was designed to obviate the necessity of establishing a public reform school for girls. The offer was, substantially, that if \$23,000 were given for purposes of construction and an additional annual allowance of \$3,000 the House of the Good Shepherd would provide for 100 colored girls committed to it by the courts. For many reasons, which it does not seem necessary at this late day to repeat, it seemed better to the Commissioners, to the Congressional committees, that the public reform school for girls should be established, and this proposition of the House of the Good Shepherd was not brought in the field of public discussion, lest in halting between two competitive enterprises the whole matter of provision for delinquent female minors should be neglected as it had been for years before.

*The Industrial Home School.*—(See Table 6, line 10; Table 8, line 3, and Table 10, line 3.) This institution has an average daily number of inmates of 100.4 and cared for 155 different children during the year. Of the 54 that left the institution during the year, 25 were returned to relatives or friends and 20 were sent to private homes or to situations that had been found for them. In pleasant contrast with common unwillingness of employers to take institution children is the fact that those who leave this institution are sought after by persons desiring to employ such help. The industrial training given at the institution adds considerably to the expense of it, but no one can doubt who has carefully examined the results that it much more than pays for itself. Systematic instruction is given to the boys in carpenter work and in caring for the greenhouses owned and managed by the school. It is supported entirely by public money, except that nearly \$1,000 is realized from the sale of the products of the shops and greenhouses. The average annual cost of an inmate is \$123.91. The request made to the Commissioners by the president and secretary of the board of trustees of this institution asks for \$13,500 for maintenance, \$2,500 for the promotion of industries, and \$4,000 for building and repairs. As this is a private corporation, it must necessarily take its place with others of like character as a contractor, and deal primarily with the Board of Children's Guardians and not directly with Congress. Inasmuch, however, as the property which it occupies belongs to the District in fee, an exception

may be made in appropriations for purposes of construction. Whatever improvements the District makes on this property the District will own and can have the use of for any purposes to which it may be desirable to put them hereafter.

The old building occupied by the Industrial School was formerly the Georgetown almshouse. The walls are substantial, but the woodwork is rotting away. The roof and window-casings let in both wind and rain, and the building is almost uninhabitable. At the same time additional room is needed in order to provide proper rooms for children that may be sick, and for other purposes. It is the opinion of the inspector of buildings for the District that for \$4,000 the walls could be carried up so as to make a second story out of what is now but a half-story and the decaying roof and woodwork replaced by new. It appears to me that the expenditure of money for this purpose would be economical and useful, and that it is in fact necessary unless the old building is allowed to go to utter wreck and be torn down.

As the industrial training given also adds to the cost of operating the institution and is an element not ordinarily present in the expenses of an orphan asylum, this might be properly appropriated for in addition to whatever may be received through the Board of Children's Guardians for the care of children.

If the corporation controlling the institution is willing to so modify its character as to become a public corporation, with members appointed by the Commissioners on the recommendation of the board itself, I should distinctly favor having this institution appear by name in the annual appropriation bills and receive a substantive appropriation on the same footing as the reform schools.

Under existing circumstances I recommend for the promotion of industries, \$2,000; for building and repairs, \$4,000.

*St. Rose's Industrial School.*—(See Table 6, line 11; Table 8, line 4, and Table 10, line 4.) This is an institution of whose income 80.6 per cent is paid by the District. The net profits on the industries carried on are reported as \$3,500 for the fiscal year. It contains on an average 82 girls, and cared for 106 different girls during the year. Most of the girls are over 15 years of age, and none are received but those of good character. The institution is one where useful industrial training seems to be combined in a very satisfactory way with the making of a profit on the work done. It is, in fact, a large dressmaking establishment, but one in which the health and development of the workers is not sacrificed to the profits derived from the business. It serves as a training school for girls from ordinary orphan asylums, many of whom come here to acquire a trade before going out into ordinary life. As will be seen from Table 6, 59 of the girls have come from other institutions, 39 of these from institutions outside the District.

#### THE CARE OF FEEBLE-MINDED CHILDREN.

By an act approved June 16, 1880, feeble-minded children in the District may be sent, in the discretion of the president of the Columbia Institution for the Deaf and Dumb, to institutions suitable for their care and training. Under this act feeble-minded children have been sent from the District to the great institution for the training of feeble-minded at Elwyn, Pa. I visited this institution June 17, 1892. At that time there were 14 District children there, all of whom seemed to be in good health. About half of them were employed at some sort of useful work. The statement furnished me by Dr. Kerlin regarding these



District children indicates that eight of them are susceptible of improvement. The one who has been there longest, since 1884, is becoming a useful domestic. In some cases it is reported that the children are susceptible of much mental improvement, but that moral incapacity is fixed and incurable. For those children who are unable to do anything of a useful character about the institution the District pays \$250 per year each. Four, whose development has advanced so far that they can be of considerable use, are cared for by the institution at the rate of \$100 per annum. Their ages range from 10 to 20 years.

The District is fortunate in having so good a place where dependent children can be provided for at such reasonable rates. We should avail ourselves more largely of the opportunity than we have heretofore done. It is unfortunate that 32 feeble-minded children should remain in our local institutions. The presence of a mental or moral imbecile, or of a child approaching that character, does much to lower the tone of the institution in which it is cared for. The average of energy and inventiveness is at best none too high among institution children, and it is distinctly bad, both for the feeble-minded themselves and for their associates, that the mentally sound and the mentally unsound should grow up together. Many more applications have been made to Dr. Gallaudet for the admission of feeble-minded children to Elwyn than the size of the appropriation enables him to provide for. Not only in the institutions for children, but also in the Washington Asylum, are there feeble-minded children who should have the special training and care which a special institution can alone give. Another matter which should be considered is provision for the custody of feeble-minded adults, especially women. It is better to isolate and afford institutional protection to these unfortunates than to allow the community to be burdened by successive generations of their descendants. Custodial care need not cost as much as the special training which it is profitable to give the children, but it should be kindly and continuous. At present it does not seem advisable to ask for any other change than an increase of the appropriation, which will make it possible to send a larger number of children to Elwyn.

Dr. Gallaudet was charged with the work of attending to these cases at a time when there seemed to be no other official in the District that could properly undertake it. I understand that he would prefer to be relieved of this duty, and I have therefore placed the estimate for this work with the other items of the estimates for the Board of Children's Guardians. This board seems to be the proper authority to have charge of the matter, and can best coördinate it with the other child-saving work of the District.

#### THE BOARD OF CHILDREN'S GUARDIANS.

The text of the law creating this board is as follows:

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That there shall be created, in and for the District of Columbia, a board to be known as the board of children's guardians, composed of nine members who shall serve without compensation, the said board to be a body politic and corporate and to have the powers and to be constituted in the manner hereinafter provided.

SEC. 2. That the members of the board of children's guardians shall be appointed by the judges of the police court and the judge holding the criminal court of the District of Columbia, met together for that purpose; the assent of a majority of such judges being necessary to appointment in each case: *Provided*, That there shall always be at least three representatives of each sex upon the board. Of the nine members first appointed after the passage of this act, three shall be appointed for



one year, three for two years, and three for three years. Thereafter all appointments, except such as shall be made for the remainder of unexpired terms, shall be for the term of three years. The judges of the police court and the judge holding the criminal court, or a majority of them, when met together for that purpose, may remove for cause any member of the board: *Provided*, That such member shall be given an opportunity to be heard in his own defense.

SEC. 3. That the board shall elect from its own members a president, vice-president, and secretary, who shall severally discharge the duties usual to such offices, or such as the by-laws of the board may prescribe. The board shall have the power subject to the approval of the Commissioners to employ not more than two agents, at an annual compensation not exceeding two thousand four hundred dollars for the two, and prescribe their duties, and to conclude arrangements with persons or institutions for the care of dependent children at such rates as may be agreed upon.

SEC. 4. That said board shall have the care and supervision of the following classes of children: First. All children committed under section two of the act approved February thirteenth, eighteen hundred and eighty five, entitled, "An act for the protection of children in the District of Columbia, and for other purposes." Second. All children who are destitute of suitable homes and adequate means of earning an honest living, all children abandoned by their parents or guardians, all children of habitually drunken or vicious or unfit parents, all children habitually begging on the streets or from door to door, all children kept in vicious or immoral associations, all children known by their language or life to be vicious or incorrigible, whenever such children may be committed to the care of the board by the police court or the criminal court of the District; and power is hereby given to these courts to commit such children when not over sixteen years of age to said board: *Provided*, That the laws regulating the commitment of children to the reform schools of the district shall not be deemed to be repealed in any part by this act. Third, such children as the board of trustees of the reform school for boys or the reform school for girls, may, in their discretion, commit to the board of children's guardians, and power is hereby given the board of trustees of the said reform school to commit any inmate of their respective institutions to the said board of guardians, conditionally upon the good behavior of the child so committed. Fourth. Under the rules to be established by the board children may be received and temporarily cared for pending investigation or judgment of the court.

SEC. 5. That the board shall be the legal guardian of all children committed to it by the courts, and shall have full power to board them in private families, to board them in institutions willing to receive them, to bind them out or apprentice them, or to give them in adoption to foster parents. Children received from the reform schools shall be placed at work, bound out or apprenticed, and at any time before attaining majority may be returned to the school from which they came, if in the judgment of the board of guardians such a course is demanded by the interest of the community or the welfare of the child. All children under the guardianship of the board shall be visited not less than once a year by an agent of the board, and as much oftener as the welfare of the child demands. Children received temporarily may not be kept longer than one week, except by order of the police court or the criminal court.

SEC. 6. That the antecedents, character, and condition of life of each child received by the board shall be investigated as fully as possible, and the facts learned entered in permanent records, in which shall also be noted the subsequent history of each child, so far as it can be ascertained.

SEC. 7. That the Commissioners of the District shall have authority to prescribe the form of records to be kept by the board of guardians, and the methods to be employed by them in paying bills and auditing accounts; and an annual report of its operations hereunder shall be made by the board to the superintendent of charities. The superintendent of charities shall have full powers of investigation and report regarding all branches of the work of the board, as well as over all institutions in which children are placed by the board; and it shall be his duty to recommend annually the appropriations which in his judgment are necessary to the carrying on of its work.

Approved, July 26, 1892.

Pursuant to this act the judges of the two courts named, on September 16, 1892, appointed as members of this board, for the term of three years, Joseph J. Darlington, Crosby S. Noyes, and Miss Harriet Loring; for the term of two years, B. Pickman Mann, Simon Wolf, and Mrs. L. S. Doolittle; for the term of one year, Albert A. Wilson, George W. Moore, and Mrs. H. B. F. Macfarland. It being not possible for Mr. Wilson and Mr. Moore to serve, the judges, in November, appointed William J. Miller and John F. Cook to fill the vacancies on the board.

It was not intended, or, indeed, possible, that this board should begin work during the current fiscal year, but only that it should organize and be ready to proceed with its duties after the coming session of Congress. The memoranda furnished the Commissioners and the report of the House committee on the bill while pending serve to indicate a little more fully than the act itself the special duties and responsibilities that will devolve upon the new board.

It will hereafter be unnecessary that the District should be asked to contribute to the support of any dependent child unless that child is the legal ward of the Board of Guardians. There is certainly enough provision made by charitable means for the temporary care of the children of the poor. After organizing and appointing its agents, it will be the duty of the board to investigate and pass upon the case of every child, whether at present in an institution or not, which it is thought desirable that the District should support. If the court appealed to makes the child dependent, then the Board of Guardians, can place it to board in any private institution, in any private family, or give it in adoption to foster parents if opportunity offers. The way in which a private institution can secure public money will be to bring the cases of the children in its care before the Board of Guardians, and if the children are adjudged dependent then public money will be available to pay for their care so long as they are in the institution. It will be seen that if the institution then wishes to serve denominational or general humanitarian interests it can do so, but at its own cost and not at the cost of the taxpayers of the District.

It is further hoped that the overcrowded condition of the institutions for children may be relieved in consequence of (1) expert and thorough investigation of all cases, (2) of the gradual introduction of the placing-out system. The introduction of this system in the District is somewhat experimental, but in so far as it can be introduced it is undoubtedly much better and much cheaper than institution care. The Board of Guardians will have authority to place out any child for the support of which the District is contributing.

Another possible benefit to be derived from the operation of the new board is the mitigation of the pressure upon the reform schools. Many children are sent to these schools whom it is not necessary to retain in the institution for any considerable period, and by the new legislation the trustees of a reform school can give such inmates conditional liberation under the guardianship of the Board of Guardians.

As considerable time will be necessary for the investigation of the cases of the 600 or more children now in subsidized private institutions, it is necessary that the Board of Guardians should be at work some time before the new fiscal arrangements for these institutions go into effect. I shall, therefore, ask that the money for the administrative expenses for the board be made immediately available upon the passage of the appropriation bill. This will give four months in which to investigate cases before the institutions will have used up the money appropriated to their use for the current fiscal year.

It is not possible to tell exactly what the expenditures for the care of dependent children will be under the new order of things. No measures should be adopted that would cripple existing institutions or fail to provide in the fullest possible manner for the properly dependent children of the District. Much will doubtless depend on the methods of administration adopted by the board when it shall be organized. With the Pennsylvania Children's Aid Society, where the children are boarded out, the cost is \$138 per year per child, divided as follows:



Administrative expenses, \$22.66; boarding, \$96.21; clothing, \$14.89; medicine, etc., \$4.92.

The children's visitor of the Philadelphia Bureau of Charities, who has authority to board out those in his care, has charge of about 368 children in a year. He pays \$1.54 a week for the board of those that are placed in institutions, \$2 per week for those who are placed with the Children's Aid Society.

Great economies may be expected from the new Board of Guardians, but in order to prevent injustice to institutions heretofore receiving subsidies, or possible hardship to the children, I have estimated for an amount about the same as for the current year for this work of providing for dependent children. The estimates are based on the census of children already described, and on comparisons made with similar work in other cities.

I recommend that the following amounts be appropriated for the use of the Board of Children's Guardians for the fiscal year ending June 30, 1894, or so much of the several amounts as may be necessary:

For administrative expenses, including salaries of agents, expenses in placing and visiting children, and all office and sundry expenses, \$6,000; this to be immediately available.

For the care of feeble-minded children, \$6,000, provided that the authority for placing these children heretofore given to the Secretary of the Interior be transferred to the Board of Children's Guardians.

For the care of children under three years of age, white and colored, \$15,500.

For the board and care of all children over 3 years of age, \$28,000;

For the temporary care of children pending investigation, or while being transferred from place to place, \$3,500; in all, \$59,000.

This is \$50 less than the amount appropriated for similar purposes during the current year, but in my opinion, under the new condition of affairs, will be ample for the work required. Hereafter it is possible that larger savings may result, and at any rate the tendency to swell this item of the annual appropriation bill will, I trust, be checked.

#### THE GIRLS' REFORM SCHOOL.

The following estimates for the Girls' Reform School have been furnished me by the board of trustees and are approved:

Salaries from March 1, 1893, to June 30, 1894:

Superintendent, at \$1,200 .....	\$1, 600
Matron, at \$600 .....	800
Two teachers, at \$480 each .....	1, 280
One day watchman, who shall also be driver, at \$600 .....	800
One night watchman, at \$365 .....	488
One laborer, at \$300 .....	400

Supplies from March 1, 1893, to June 30, 1894:

Groceries, provisions, fuel, soap, oil, lamps, candles, clothing, shoes, forage, horseshoeing, medicine, medical attendance, hack hire, freight, stationery, furniture, beds, bedding, sewing machines, fixtures, books, horses, wagon, harness, cows, stable, wagon and cow sheds, fences, and repairs .....	5, 368
	18, 175

Total ..... 23, 543

#### INSTITUTIONS FOR THE HOMELESS POOR.

Tables 11 and 12 give such facts as have been gathered relative to the six institutions for the homeless poor in Washington. In my last report it was recommended that four of these institutions be omitted



from the annual subsidy list, and that instead a municipal lodging house and wood yard be established. The appropriation committees very properly took the view that, inasmuch as the appropriation bills did not pass until the middle of summer, and it would be a slow work to organize a new institution, it was better to provide for the new institution, but not to refuse to subsidize the old ones until it was seen what the municipal lodging house could accomplish. In the present report a new adjustment is suggested by which the four institutions referred to can receive public money hereafter on the businesslike principle of specific payment for specific work.

TABLE 11.—*Financial report of temporary homes for fiscal year ending June 30, 1892.*

	Name of institution. (I.)	Esti- mated value of prop- erty owned. (II.)	Income from—				Total. (VII.)
			Balance. (III.)	Public funds. (IV.)	Pay, in- mates, or work of inmates. (V.)	All other sources, subscrip- tions, do- nations, dues, etc. (VI.)	
1	Hope and Help Mission .....	\$300	\$192.24	\$1,000.00	\$8.07	\$542.79	\$1,743.10
2	National Temperance Home .....		124.21	2,149.69	2,052.15	15.84	4,341.89
3	Night Lodging House Association .....	7,500	557.10	400.00		275.00	1,232.10
4	Temporary Home for Soldiers and Sailors .....	750	51.24	2,500.00		885.69	3,436.93
5	Woman's Christian Association .....	37,500	621.65	4,000.00	2,494.77	378.25	7,494.67
6	Young Women's Christian Home .....		405.74	1,000.00	795.99	1,327.55	3,529.28
	Total .....	46,050	1,952.18	11,049.69	5,350.98	3,425.12	21,777.97

	Name of institution. (I.)	Expenditures for—					Per cent of interest less bal- ances and earn- ings contrib- uted by District govern- ment. (XIII.)
		Rent. (VIII.)	Salaries. (IX.)	All other forms of main- tenance, including repairs. (X.)	Total. (XI.)	Balance. (XII.)	
1	Hope and Help Mission .....	\$600.00	\$339.91	\$629.95	\$1,569.86	\$173.24	64.8
2	National Temperance Home .....	880.00	800.00	2,479.58	4,159.58	182.31	99.3
3	Night Lodging House Association .....		192.50	519.32	711.82	520.28	59.3
4	Temporary Home for Soldiers and Sailors .....	390.00	300.00	2,489.91	3,179.91	257.02	73.8
5	Woman's Christian Association .....		1,332.50	5,560.13	6,892.63	602.04	91.1
6	Young Women's Christian Home .....	812.04	495.00	1,524.96	2,832.00	697.28	43
	Total .....	2,682.04	3,459.91	13,203.85	19,345.80	2,432.17	70.5

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. - 199

TABLE 12.—Report of work done in temporary homes during fiscal year ending June 30, 1892.

Name of institution. (I.)		Meals.					Total, free, paid for, worked for, and for employés. (VII.)
		Free. (II.)	Paid for. (III.)	Worked for. (IV.)	Total, free, paid for., worked for. (V.)	For employés. (VI.)	
1	Hope and Help Mission .....	9,461	.....	593	10,054	1,098	11,152
2	National Temperance Home.....	6,633	11,261	1,149	19,043	4,713	23,756
3	Night Lodging House Association ..	5,247	.....	.....	5,247	1,008	6,255
4	Temporary Home for Soldiers and Sailors .....	24,682	.....	.....	24,682	.....	24,682
5	Woman's Christian Association.....	16,966	20,828	6,337	44,131	7,403	51,534
6	Young Women's Christian Home ...	4,024	14,376	190	18,590	2,502	21,092
Total.....		67,013	46,465	8,269	121,747	16,724	138,471

Name of institution.		Lodgings.					Total, free, paid for, worked for, and for employés. (XIII.)
		Free. (VIII.)	Paid for. (IX.)	Worked for. (X.)	Total, free, paid for, worked for. (XI.)	For employés. (XII.)	
1	Hope and Help Mission .....	3,852	.....	340	4,192	734	4,926
2	National Temperance Home.....	1,898	3,770	196	5,864	926	6,790
3	Night Lodging House Association ..	2,203	.....	.....	2,203	168	2,371
4	Temporary Home for Soldiers and Sailors .....	11,080	.....	.....	11,080	.....	11,080
5	Woman's Christian Association.....	5,691	7,031	2,112	14,834	2,222	17,056
6	Young Women's Christian Home ...	1,074	3,949	.....	5,023	462	5,485
Total.....		25,798	14,750	2,648	43,196	4,512	47,708

Name of institution.		Total number of meals and lodg- ings. (XIV.)	Average cost of meals or lodging. (XV.)	Number refused accommo- dations. (XVI.)	Largest number at one time. (XVII.)	Smallest number at one time. (XVIII.)	Number for whom situa- tions were found. (XIX.)
1	Hope and Help Mission .....	16,078	\$0.098	.....	16	5	72
2	National Temperance Home.....	30,546	.136	.....	31	17	10
3	Night Lodging House Association ..	8,626	.082	321	31	7	.....
4	Temporary Home for Soldiers and Sailors .....	35,762	.089	.....	56	13	.....
5	Woman's Christian Association.....	68,590	.101	.....	55	42	53
6	Young Women's Christian Home ...	26,577	.107	152	20	16	130
Total.....		186,179	.104	473	.....	.....	265

The fund of \$5,400 placed at the disposal of the Commissioners "for the temporary support of indigent persons" was allotted as suggested by the wording of this item in the appropriation bill, namely:

Temporary Home for Ex-Union Soldiers and Sailors .....	\$2,500
Young Women's Christian Home .....	1,000
Hope and Help Mission .....	1,000
Washington Night Lodging Association .....	400
Metropolitan police (for distributions to the poor).....	500

The last item of this apportionment was adopted by the Commissioners without the recommendation of the superintendent of charities.

*Temporary Home for ex-Union Soldiers and Sailors, Grand Army of the Republic.*—The tabulated facts regarding this institution will be found

in Table H, line 4, and Table 12, line 4. From the financial statement it will be seen that 73.8 per cent of its income was derived from District funds. Its salary roll amounted, for the year, to only \$300, and it was carried on by a total expenditure of \$3,179.91. During the year it furnished a total of 24,682 free meals and 11,080 free lodgings. The average cost of a meal or lodging was 8.9 cents. The volume of work done shows an increase of about 700 meals and lodgings over the preceding year. The largest number cared for any one night was 56 and the smallest number at any one time 13.

It is definitely my opinion that this institution should not be under the District government and not chargeable upon its revenues, but that it should be under the Board of Governors of the National Soldiers' Homes. But, since Congress refused to accept this view of the matter, nothing remains for me to do but to estimate for it as provided by law. Last year an earnest appeal was made to have Congress increase the amount for this home to \$3,000. That appeal was based partly upon the increased expenditures that it was anticipated would be entailed upon the home by the presence of the Grand Army of the Republic in its reunion during the current year. At the date of writing this I am not informed whether or not the managers anticipate exceptionally large expenditures next year, and therefore recommend only the amount heretofore given.

I recommend for the Temporary Home for ex-Union Soldiers and Sailors for the fiscal year ending June 30, 1894, \$2,500.

*The Women's Christian Association.*—(See lines 4, Tables 11 and 12.) The work of this institution has been so long established and embraces so many kinds of activity that it has been impossible to classify it as a temporary home, strictly so called. It can and ought to coöperate with the municipal lodging house when the latter is organized and in operation, but it seems not unjust that the association itself should be allowed, at least for some time, to retain its long held place in the appropriation bills. During the past year 91.1 per cent of its income was furnished by the District government. Of the meals furnished to beneficiaries, 16,966 were free, 20,828 paid for, 6,337 worked for. The number of free lodgings was 5,691, of lodgings paid 7,031, and the lodgings worked for 2,112; the average cost of a meal or lodging was 10.1 cents; the largest number of inmates at one time was 55 and the smallest 42. The total amount received from pay inmates was \$2,494.77.

I recommend the usual appropriation of \$4,000 for maintenance for the Women's Christian Association for the year ending June 30, 1894.

*Hope and Help Mission.*—(See Table 11, line 1, and Table 12, line 1.) The work of this institution, as described in my last annual report, has been continued along much the same lines as during the previous year. The tabulated facts regarding it will give all, perhaps, that is essential. Situations were found for 72 persons who are beneficiaries of the mission. In this class of work a very good gauge of efficiency is the number of persons for whom work is found. As already indicated, it seems wise that the public support accorded this institution should be given on the principle of specific payment for specific work, and will be elsewhere provided for.

*National Temperance Home.*—The tabulated facts regarding this institution will be found in Tables 11 and 12, line 2 in each case. The tabular statement, together with last year's description of the purposes and methods of this home, constitute all that it seems necessary to say about it at present. As in the case of three other institutions, it seems inadvisable that a specific appropriation should be made for this institution by name.



*The Young Women's Christian Home.*—The tabulated facts regarding this institution are arranged in Tables 11 and 12, line 6 in each. It will be seen that work was found for 136 persons by the authorities at this home. The large number of those refused admission—152—is explained by the age limit and the fact that those are not received who can not bring evidence of good character.

*The Washington Night Lodging Association.*—The facts regarding the operations of this institution, so far as they are capable of tabular expression, will be found in Tables 11 and 12, line 3 in each case. The institution was only operated for about four or five months during the coldest of the weather. Although Congress appropriated \$400 which might have been used during the current year by this association, yet by a resolution of the board of trustees, unanimously adopted September 16, 1892, the building and appliances were turned over to the Commissioners for the use of the new Municipal Lodging House. This act of generosity on their part at once freed the new enterprise from the necessity of paying rent during its experimental year, and also placed at the disposal of the Commissioners for other use the \$400 designed for the Night Lodging House. It is certainly a refreshing experience, after dealing with many organizations which are unwilling or unable to coöperate satisfactorily with others for the best good of the work in which all are interested, to find here an association which is willing to yield up its property without compensation and to suspend its operations for a year in order that a new public institution may have a fair trial.

*Municipal Lodging House and Wood Yard.*—The opening of this new institution, for which \$8,000 was asked and \$4,000 obtained at the last session of Congress, has been postponed until late in the autumn, in order that the amount available might be adequate to the work in hand for the time during which it is operated. At this time no superintendent has been appointed, but inquiries have been made in Washington and in other cities for some one of intelligence and experience who can go forward with the work vigorously and develop it along right lines. It is not doubted that such a person can be found. There is coming to be a large class of men of vigor and intelligence and education who take up philanthropic work from higher motives than the mere drawing of a salary, and it is hoped that some one of this class can be secured.

As already indicated, it is hoped that the new institution will result in emptying the station-houses of lodgers; that, by providing a work test, it will help to rid the city of tramps, and that it will give cleanly and honorable relief to all strangers really destitute and honestly out of work in the city.

As there may be some classes of cases for which such an institution can not properly provide and which it may seem best to send to some of the private institutions already existing, it is recommended that a fund be placed at the disposal of the superintendent of the municipal lodging house, which shall enable him to send any cases of this kind to these private institutions.

I recommend for the municipal lodging house and wood yard for the year ending June 30, 1894, \$6,000.

For the temporary support of indigent persons who may be sent to private institutions by the superintendent of the municipal lodging house, \$4,000.

*Aged Women's Home.*—This institution received the usual \$300 through the Commissioners from the fund at their disposal for the relief of the poor. It is unlike any other of the subsidized charities, and therefore

its transactions are not tabulated with theirs. About the full quota of 13 aged women were given shelter here during the fiscal year. The items of income for the year were: balance, \$186.81; public funds, \$300; endowments, \$103; all other sources, including donations, subscriptions, etc., \$144.78. On the expenditure side there was no rent and no salaries to be paid. The outlay for other items of maintenance was \$427.56.

For reasons explained on pages 34-35 of my last annual report it does not seem to me expedient to subsidize private institutions for the aged, and I shall not hereafter recommend the allowance of the \$300 heretofore given this home. It was given for the current year in order that no inconvenience might result from its sudden discontinuance.

#### OUTDOOR RELIEF.

##### ASSOCIATED CHARITIES.

The problem of allotting or not allotting the sum of \$1,000 to the Associated Charities from the fund at the disposal of the Commissioners for the relief of the poor was much discussed during the last fiscal year. Such an allowance had been made during the preceding year, and my recommendation that it be not renewed was vigorously opposed. In order that the association concerned might not be crippled through the unexpected withdrawal of its income the amount for one quarter, \$250, was given. My argument against any further allowance at the time was summarized in a memorandum handed to the Commissioners under date of November 4, 1891. The important parts of this memorandum are given herewith:

I have never definitely recommended to you that the amount last year appropriated to the Associated Charities should hereafter be withheld, but I have made recommendations for other uses of the money inconsistent with their receiving that amount, and I have indicated to their managers my opinion that it would not be expedient to renew the grant of last year. Some matters not strictly pertinent to the question in hand were brought forward by the committee that appeared before you on the 23d of October last, and these must be briefly touched upon before turning to a systematic review of the points at issue.

The president of the board of managers of the Associated Charities urged that I have no authority to make recommendations regarding the apportionment of the \$16,000 "for the relief of the poor." You, the Commissioners, will remember that on the 18th of June last I asked if you wished me "to report and make recommendations concerning the expenditure" of this money, and I have the signature of the three Commissioners to the written answer, "Yes." It would be strange indeed if you had no right to request a subordinate to furnish you with facts and recommendations in such a matter. Mr. Dodge further urged that I have no right to make recommendations regarding the uses to which the "centennial fund" shall be put. I have never made any.

It was further said by the committee that the only question is, "Shall this money be given to the Associated Charities or to the police for distribution among the poor." I, on the contrary, think there are four distinct policies open to you in the matter of outdoor relief: (1) You are free to hold that outdoor relief with taxpayers' money is inadvisable, and that there shall be none of it. By taking this course you would put yourself in line with what is considered expedient by a majority of those best acquainted with relief work in the large cities of America. The \$16,000 might then all be used to provide more effectually for dependent children or for the relief of the destitute sick than is now possible. (2) You are free to hold that outdoor relief with taxpayers' money is advisable, but that it should be administered only by experts in the work, appointed by yourself and directly responsible to you for the administration of the trust. (3) You are free to hold that such relief should be given by and through the police department, the health department, or any other branch of the city government on which you may think best to impose the responsibility of such additional work. (4) You are free to give the taxpayers' money for distribution in outdoor relief to self-organized private associations, such as the Associated Charities, the Society of St. Vincent de Paul, the Women's Chris-



tian Association, or others that do more or less of such work. It is only as to the advisability of adopting the last-named policy that we are now making inquiries.

I wish to bring to your attention three reasons for not hereafter apportioning to the Associated Charities any part of the \$16,000 "for the relief of the poor."

(1) It will be injurious to the society itself to receive public money. This statement is questioned by the managers, but it should be noticed that they are not disinterested judges. It is much easier and pleasanter to disburse public money than to obtain and disburse private contributions. As one who has worked for a society entirely supported by private contributions, I am well aware of the straits in which finance committees find themselves, and of the unpleasant nature of the work securing adequate support. I can understand that even good men should wish to avoid such work if possible, but they should not forget that the interests of the poor and of the community will suffer if they do. Taxation can not take the place of self-sacrifice. To support my contention that public subsidies tend to diminish the amount of private contributions I submit the following facts:

In 1880 there were only six institutions receiving aid for maintenance from the District treasury which have also received such aid annually since that time. Of these there is not one that during the year ending June 30, 1891, did not receive more from public than from private contributions; and of the six, four now derive less than 10 per cent of their annual income from private sources. In most cases, if we examine the records of a subsidized institution for a series of years, we find an absolute as well as a relative falling off in the matter of contributions from private persons.

Mr. Emery stated to me, on the evening of the 20th instant, that during the three-quarters of the year ending October 16, 1891, the Associated Charities had received from the Commissioners \$750, and during that time the private contributions had fallen off \$450 as compared with the same period for the preceding year. He added that he thought that if he had exerted himself as much as formerly the private contributions would have been kept up to their former figure. It seems that a gift of public money merely frees the representatives of a society from "exerting themselves," and I doubt the advisability of doing this. That the general secretary of such a society ought not to be expected to solicit and collect the money with which he is paid I conceive to be true; but that is a point for him and his managers to settle between themselves, just as similar points are settled between a clergyman and his parishioners.

To you Mr. Emery stated that since my appointment the contributions from private persons had fallen off 25 per cent, and attributed the decrease to the fact that people supposed I was going to do his work. But it should be noticed that the time of the creation of this office was also the time when the Associated Charities first received public money; and while the mistake regarding my functions might have been easily and fully explained had the society been in proper touch with its contributors and friends the grant of a public subsidy gave an excuse for withholding private contributions that could not be explained away.

Now, while it is unpleasant for the managers of a society like the Associated Charities to ask for private contributions, it is essential to the efficiency of the organization that they should do so. The very breath of life of such an organization is the confidence of the community in which it works, and the surest way to compel it to secure that confidence is to make it look to that community for voluntary support. When a society solicits contributions it hears all the complaints that are made about itself, and to be obliged to listen to these is the first step either in showing their unsoundness or in correcting the faults on which they are based. Even a large endowment is often a misfortune to a society seeking to organize the charities of a city. I could cite specific instances were it necessary. When the manager of the Associated Charities tells us that they are frequently in debt during the fall and winter, the proper reply is that their lot is the common lot of similar organizations, will make them more active and more efficient, and that public subsidies are no more a proper remedy for such a state of things than opium is a proper remedy for insomnia.

(2) It is contrary to public policy that public money should be given to any private association to be distributed in outdoor relief. Outdoor is one of the most dangerous methods of relieving the poor ever attempted. In this country and in England it has more often degraded than benefited the destitute, and has done more to fill almshouses than to empty them. I know of no large city that now ventures to intrust the perilous matter of administering such relief from the public funds to self-organized societies, though I know of several that have experimented in that direction and abandoned the policy as too dangerous. It is easy to see why that should be so. It is possible for Government officials adequately to inspect the institutions it subsidizes, but it is not possible for any official to follow and report upon work that must extend to every alley and hovel of a great city. If such relief is to be given from public funds American experience indicates that it should be given by public officials alone.



(3) The public subvention of a society doing the work which the Associated Charities has undertaken is not necessary in Washington. Though the general secretary of the Associated Charities scouts the idea that one who has been in the city but a few months can know anything about her people, yet I venture to believe that he and the managers underestimate the public spirit and liberality of our citizens. I venture to believe, and have definite grounds for the belief, that if the Associated Charities but succeed in holding the confidence of the community they will receive adequate support from private sources. \* \* \*

#### RELIEF THROUGH THE POLICE DEPARTMENT.

The money received by the District government from what is called the centennial fund for the relief of the poor is turned over to the police department, as well as any residual amounts left from the fund "for the relief of the poor" and the fund "for the temporary support of indigent persons, male and female." A small amount of relief distributed through the police usually reaches a very necessitous class, and where no better agency for the distribution of outdoor relief exists it is possibly a useful method of aiding the poor. The police departments of nearly all cities receive more or less from public or private sources for such purposes, but I never knew or heard of a police department that could properly be made the almoner of any considerable sum. Giving relief is not the policeman's specialty, and he ought not to be asked to undertake very much work of this kind.

#### THE NEED OF MORE EFFECTIVE CHARITY ORGANIZATION.

This city is unfortunate in that it has no central private organization which has secured the confidence of the great majority of the charitable public. Good work can not be done without such a centralized force, which insures the coöperation of the public and private charitable agencies one with another, which acts as a bureau of information to all charitably interested in the poor of the city, and as a clearing house of charities to prevent duplicate work and the overlapping of relief.

It was erroneously supposed by some that the superintendent of charities, when appointed, would act as such a centralizing influence. But this work of effectively organizing the public and private charities of the city is one beyond the power of any public official. It has been, and no doubt will hereafter be, the duty of the superintendent of charities to offend many people, whereas an agency which is to organize the charities of the city must have the friendship and coöperation of all. A society with a guaranteed income of \$4,000 a year for administration purposes, and the hearty support of our best and most intelligent citizens, would do more for the charities of the District and consequently for the District poor, than any public official that could be appointed, or than any appropriation that Congress could possibly make.

#### THE SUPERINTENDENT'S OFFICE.

During the fiscal year for which this report is made the superintendent of charities, in the discharge of the duties imposed on him by law, has written 319 letters, received 381; has made 208 calls on persons outside the office; has received 188 calls at the office; has paid 94 visits to institutions, and has attended 36 meetings of the boards of managers or trustees or other official bodies connected with the charities of the District.

The limitation which obliged the president to appoint some one for this office from outside the District is a source of irritation to many,

and in view of the other limitations imposed by the act creating his office, should possibly be repealed. The history of the organization of State boards of charities shows that such bodies have frequently gone outside the State to get a man for the work, because one of larger experience could be found by this method. It is on the same principle that charity organization societies frequently call a man from a distance to act as general secretary; on the same principle that churches summon pastors from a distance, or that boards of school trustees get the most competent superintendent they can hear of, whether he be a resident of their particular city or not.

But in view of the rapidity with which this department has recently grown, and of the fact that by many the superintendency of charities was looked upon as a temporary expedient for getting a neglected department into better administrative shape, it would seem that it might be the wisest course not to tinker with the office, but to abolish it and to establish something more nearly like that which is found in the several States, namely, a district board of charities and corrections.

At the proper time a bill having this object in view will be presented to the Commissioners, and through them to Congress. Such a board should have full powers of investigation, and report regarding all charitable and correctional institutions in the District which are in anywise connected with the Government or with Government appropriations. It should possibly contain representatives of the boards of management of the Washington Asylum, of the jail, of the Reform School for Boys, the Reform School for Girls, the Board of Children's Guardians, and the Municipal Lodging House. It should especially have power to inquire into and to further organize the system of medical charities in the District—meaning by this all those that serve the District poor and receive public money. Such a board should further have an expert secretary at a salary not less than that now paid the superintendent of charities.

#### A NATIONAL BUREAU OF CHARITIES AND CORRECTIONS.

Another matter in which Congress should be interested at the earliest possible day is the establishment of a National Bureau of Charities and Corrections, an office something like that which now deals with matters of education. A large number of the States already have State boards of charity and a central bureau could do much to improve their work, to introduce better methods, and to facilitate their mutual acquaintance.

It is to be hoped that this matter will be brought prominently forward at the National Conference of Charities and Corrections to be held in connection with the World's Columbian Exposition.

TABLE 13.—*Summary of estimates and appropriations for 1893, and estimates recommended for the fiscal year ending June 30, 1894.*

Institution or fund.	Estimate, 1893.	Appropri- ation, 1893.	Estimate, 1894.
For the relief of the poor .....	\$16,000	\$14,000	\$14,000
Temporary support of indigent persons .....			4,000
Temporary Home for Soldiers and Sailors, G. A. R. ....	3,500	2,500	2,500
Young Women's Christian Home .....		1,000	
Hope and Help Mission .....		1,000	
Night Lodging-House Association .....		400	
Police distribution .....		500	
National Temperance Home .....		2,000	
Municipal lodging house and wood yard .....	8,000	4,000	6,000
The Woman's Christian Association .....	4,250	4,000	4,000
Medical charities (not provided for in item No. 1):			
Central Dispensary and Emergency Hospital .....	3,500	4,500	25,000
Columbia Hospital for Women .....	20,000	20,000	20,000
Children's Hospital .....	10,000	10,000	10,000
National Homeopathic Hospital Association .....	7,000	7,000	7,000
Freedmen's Hospital* .....			85,325
Institutions for children (including industrial and reformatory):			
Church Orphanage of St. John's Parish .....	2,000	2,000	
German Orphan Asylum .....	2,000	2,000	
National Association for the Relief of Destitute Colored Women and Children .....	10,000	10,000	
Colored foundlings .....	4,000	3,000	
St. Ann's Infant Orphan Asylum .....	7,000	6,500	
Washington Hospital for Foundlings .....	6,000	6,000	
St. Joseph's Male Orphan Asylum .....		2,000	
Home for Friendless Girls .....		250	
The care of feeble-minded children .....	3,400	4,300	
The Association for the Works of Mercy .....	2,000	2,000	
The House of the Good Shepherd .....	3,000	3,000	
The Industrial Home School .....	13,000	13,000	
St. Rose's Industrial School .....	2,500	5,000	
The Board of Children's Guardians .....			59,000
The Girls' Reform School .....	75,000	35,000	23,543
Total .....	202,150	164,950	260,368

\* Not previously included in the District estimates.

## CONCLUSION.

From Table 13 it will be seen that the estimates for the next year are about the same in amount as the amounts actually provided for the current year, leaving out of view, of course, those items which appear in this bill or this part of this bill for the first time. It has seemed that reorganization rather than growth by means of more money was what our charities needed at the present time. While the amount remains the same the number of separate items estimated for is reduced from twenty-seven to eleven. This is in the line of simplification and more businesslike organization of the department and will enable hurried committees to understand its needs more readily and more fully. Heretofore the work on this section of the appropriation bill has resembled that which would be necessary if it was sought, in providing for other departments of the city government, to incorporate in the bill an indefinite number of special contracts with private parties. It is hoped that hereafter matters will be so presented that this section need cause no more vexation to the Congressional committees than that which falls to their lot in considering other parts of the District appropriation bill.

With renewed thanks for kindness shown me by those with whom I have dealt, and especially by yourselves, this report is respectfully submitted.

AMOS G. WARNER,  
*Superintendent of Charities.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



## I. 2.

### THE WASHINGTON ASYLUM.

WASHINGTON ASYLUM,  
*Washington, D. C., October 17, 1892.*

GENTLEMEN: In submitting this my tenth annual report of the operations of the Washington Asylum for the fiscal year ending June 30, 1892, I desire to call your attention to the growth of the institution and give you an idea of the necessity for securing a larger appropriation for its support and repair.

The institution has grown since I was first employed here from the almshouse with its mixed population of male and female, black and white, pauper and prison inmates, into separate buildings for the male prisoners and a commodious and substantial prison for the detention of the female prisoners; also two buildings for the accommodation of the paupers, besides the almshouse proper.

There are sixteen buildings on the grounds for habitation, besides shops, stables, and outhouses. The floor space of the habitable buildings is as follows: Surface of wood flooring, 88,280 feet; brick flooring, 24,115 feet; tin roofing, 44,278 feet; slate roofing, 18,530 feet; shingle roofing, 10,350 feet. There are also 769 windows and 539 doors in the different buildings.

The graveled roadways consist of 6,450 linear feet; graveled walks, 2,740 feet; brick pavements, 4,050 feet, and cobble gutters 9,500 feet. The above will give you an idea of the extent of the institution, its grounds, buildings, and roadways, and the work necessary to keep them in order.

I make this statement to show that it is impossible that the necessary repairs, painting, and glazing can be done to keep them in good order without considerable outlay, and that it is not possible to make an exact estimate for their separate repairs. I therefore urge upon you the necessity of securing a fund for such work without encroaching on the appropriation for contingent expenses, and have asked for \$5,000 for this and other purposes.

Among the improvements during the past year was the finishing of the basement portion of ward No. 6, fitting it up for a dining room for hospital patients, for which there was an appropriation of \$500, of which \$498.48 was expended in the work. There was also an appropriation of \$800 for furniture for the same, of which \$791.44 was expended in fitting up a ward for maternity cases; also a ward each (male and female) for surgical cases, and for the purchase of appliances and furniture for the operating room. This building was commenced October 14, 1890, and after some delay was finally completed and was first occupied by patients October 3, 1891.

On the 29th of October, 1891, work was commenced in building an additional wing to the female workhouse. The improvement consists of a three-story brick building 48 by 104 feet, containing 64 cells and laundry, for which an appropriation of \$25,000 was provided and \$24,956.04 expended. The new structure was built under the supervision of the building inspector and was completed and first occupied by inmates May 6, 1892, and is a vast improvement over the old plan of keeping so many persons in a few rooms. This portion of the building is nearly fireproof and is built on the single-cell system.

Early in the fall of last year a brick barn for cattle was constructed from the old brick from the burnt magazine building. The work was done by prison labor without cost to the District, except an appropriation for a tin roof, which will replace the felt one used during the past winter. The building is 61 by 41 feet, with basement under it, and has 24 stalls for grown cattle and a box stall for the young ones, with sufficient loft room for the storage of fodder, and was completed and occupied February 16, 1892.

The metal roofs have been repaired and painted, and such slight repairs made to buildings as were absolutely necessary, but no extensive improvements have been attempted for want of funds.

The condition of the male workhouse has not improved over that of last year. It is true that the construction of the bath and lavatory rooms built year before last and previously reported upon has helped the sanitary condition considerably, but its ill construction, faulty planning, and overcrowded condition still remain. There is but one proper course to pursue, *i. e.*, build a new one. I recommend that \$75,000 be asked for this purpose. The construction of a proper building, which should contain about 300 separate cells, should be so constructed that wings could be added without spoiling the exterior of the building. One wing could be built at a time to somewhat lessen the cost to the District per year.

The present workhouse building by some repairs would be suitable for an overflow for the almshouse, and the old colored women now kept on the top could be comfortably and safely cared for.

The almshouse is in fair condition, except the plumbing and bathing arrangements, which, as you know, should be renewed. An effort to this end was made before last Congress, but failed. I ask that a more determined and persistent effort be made to secure an appropriation for this purpose before the next session of Congress. The basement floors of the building, which are of brick, absorb the scrub water, and are continually damp, sending out an unpleasant odor. They should be relaid with a vitrified brick or composite stone pavement, at a cost of about \$1.85 per surface yard. There are 736 yards of basement floors in this house.

During the year four gangs of the male prisoners have been employed in grading streets, etc., for which no other funds were available except \$4,000, appropriated for the purchase of cars and hire of carts to be used in connection with workhouse labor. Of this sum \$2,815.30 was used in the purchase of appliances and pay of carts.

The number of days' service rendered by the different gangs on the streets, cleaning the markets, farmwork, etc., was as follows:

	Days' work.	Rate per day.	Amount.
In grading streets:			
Prisoners .....	24,983	\$1.00	\$24,983.00
Officers .....	1,090	1.50	1,635.00
Horses .....	1,526	1.00	1,526.00
In cleaning markets: *			
Prisoners .....	2,177	.50	1,088.50
Officers .....	241	1.50	361.50
On farm and grounds:			
Prisoners .....	6,364	.50	3,182.00
Officers .....	312	1.50	468.00
In shops .....	4,580	1.00	4,580.00
In laundry .....	5,200	.50	2,600.00
In sewing-room .....	2,708	.50	1,354.00
Total .....			41,778.00

\* Loads of refuse material removed, 395.

In order to make this branch of the institution more perfect, and, therefore, more remunerative to the District in the way of labor, it is absolutely necessary to increase the number of guards. I have estimated for an increase of three overseers and three watchmen, and trust that it may be granted.

The following table consists of the principal articles raised on the farm and garden, and an estimated value of the same, as they were all consumed on the place.

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
Hay.....tons.....	10	\$150.00	Watermelons.....	700	\$70.00
Fodder.....do.....	2	10.00	Cantaloupes.....	700	85.00
Corn.....dozen.....	545	81.75	Cauliflower.....heads.....	300	30.00
Onions.....bushel.....	20	30.00	Parsley.....bunches.....	500	10.00
Kale.....barrels.....	20	20.00	Celery.....bunches.....	7,000	210.00
Potatoes.....bushels.....	60	36.00	Egg plants.....dozen.....	40	24.00
Tomatoes.....do.....	250	125.00	Pork.....pounds.....	2,590	160.40
Turnips.....do.....	250	100.00	Eggs.....dozen.....	750	150.00
Carrots.....do.....	100	50.00	Milk.....gallons.....	6,210	1,242.00
Beets.....do.....	200	70.00	Chicken.....	75	22.50
Spinach.....barrels.....	4	2.60			
Cabbage.....	8,000	40.00	Total.....		2,668.65

Old material sold at auction and proceeds turned over to collector amounted to \$129.86.

#### RECAPITULATION.

Credits due the institution for labor and material:

Grading streets on farm, in shops, etc.....	\$41,778.00
Garden products.....	2,668.65
Old material sold.....	129.86
Hogs sold for soap grease.....	60.96
Coffins furnished Health Office.....	856.50
Pay of ambulance driver.....	368.75
	<u>\$45,862.72</u>

The following list of articles of clothing, etc., were made at the tailor shop and female workhouse during the year for use of the inmates of the institution, viz:

Workhouse coats.....	214	Bed ticks.....	96
Workhouse pants.....	369	Pillow ticks.....	40
Workhouse vests.....	98	Pillow cases.....	504
Jean coats.....	27	Sheets.....	262
Jean pants.....	115	Towels.....	190
Jean vests.....	19	Roller towels.....	36
Melton coats.....	41	Aprons.....	163
Melton pants.....	59	Skirts.....	93
Melton vests.....	36	Chemise.....	42
White shirts.....	170	Night gowns.....	78
Blue shirts.....	695	Drawers.....	41
Dresses.....	91	Underwaists.....	22
Gowns.....	128	Bodies.....	16
Wrappers.....	14	Table cloths.....	21

During the past year 571 coffins were furnished for the burial of the pauper dead of the District on order of the health officer and coroner, and 69 were used for the burial of deceased inmates of the institution. During the same time there were 655 burials in the potter's field. As this institution is now required to furnish coffins and bury the dead of Freedman's Hospital it will require considerable more work, and a good horse and wagon will be necessary for this service.



## 210 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

The live stock on the farm consists of 19 horses, 15 cows, 7 heifers, 3 calves, 1 bull, and 40 hogs, all apparently healthy at this time.

A severe attack of hog cholera occurred last fall among the swine, some 40 head of which were killed, condemned as food by the veterinary surgeon for the District, and sold for soap grease. On investigating, no cause could be found for the outbreak of the disease, as the pens are cleaned daily and kept in good order. The swine now remaining seem to be in good health.

During the past year the following changes have occurred among the officers and employes of the institution:

Name.	Occupation.	When appointed.	Resignation or discharge.
Daniel Stewart .....	Watchman .....	Sept. 4, 1888	July 31, 1891.
Michael Shea .....	Overseer .....	May 1, 1890	Nov. 11, 1891.
Thomas Trundle .....	Cook .....	June 5, 1890	July 5, 1891.
Frank Talbert .....	Blacksmith .....	July 24, 1890	Sept. 30, 1891.
Joseph Coghlan .....	Temporary watchman .....	Oct. 15, 1890	Nov. 11, 1891.
John Hammond .....	Overseer .....	Mar. 16, 1891	Mar. 31, 1892.
Adda Hammond .....	Keeper female workhouse .....	do .....	Do.
James W. Lowe .....	Watchman .....	Apr. 1, 1891	Apr. 20, 1892.
Matthew W. Kent .....	Driver .....	do .....	Do.
James A. O'Connor .....	Tailor .....	May 15, 1891	July 7, 1891.
Elizabeth Douglass .....	Cook .....	June 1, 1891	Aug. 31, 1891.
Albert Youst .....	Watchman .....	June 20, 1891	Nov. 12, 1891.
Margaret McLean .....	Nurse .....	July 1, 1891	Nov. 10, 1891.
John Steele .....	Cook .....	July 6, 1891	
John N. Elret .....	Tailor .....	July 15, 1891	Sept. 14, 1891.
Wilfred M. Barton .....	Resident student .....	July 22, 1891	May 30, 1892.
Edward Rockett .....	Cook .....	Aug. 5, 1891	Sept. 30, 1891.
J. D. B. Littell .....	Watchman .....	Aug. 15, 1891	Sept. 10, 1891.
Betty Jackson .....	Cook .....	Sept. 1, 1891	Mar. 31, 1892.
W. H. Arnold .....	Watchman .....	Sept. 12, 1891	
Frederick Bloomer .....	do .....	Sept. 14, 1891	
George Sabien .....	Tailor .....	Sept. 15, 1891	
James H. McChesney .....	Watchman .....	Sept. 21, 1891	Oct. 11, 1891.
James Kersey .....	Carpenter .....	Sept. 22, 1891	Oct. 10, 1891.
John Lanahan .....	Blacksmith .....	Oct. 1, 1891	Apr. 30, 1892.
William Robinson .....	Cook .....	do .....	
Jennie Vance .....	Nurse .....	do .....	Oct. 15, 1891.
J. R. Nevitt .....	Resident student .....	Oct. 2, 1891	
A. St. A. Smith .....	Watchman .....	Oct. 13, 1891	Jan. 7, 1892.
John Gillian .....	Carpenter .....	Oct. 31, 1891	
M. Hurdlo .....	Painter .....	Nov. 2, 1891	Jan. 19, 1892.
Agnes Reeves .....	Nurse .....	Nov. 11, 1891	
Joseph Coghlan .....	Watchman .....	Nov. 12, 1891	
Albert Youst .....	Overseer .....	do .....	
William Webster .....	Stableman .....	Nov. 15, 1891	Feb. 29, 1892.
Lucy Robinson .....	Nurse .....	Dec. 2, 1891	
Henry J. Hardy .....	Carpenter .....	Dec. 23, 1891	Jan. 14, 1892.
D. P. Barrett .....	Stableman .....	Mar. 18, 1892	May 8, 1892.
Henry M. Davis .....	Overseer .....	Apr. 1, 1892	
Martha Davis .....	Keeper female workhouse .....	do .....	
Marion Wells .....	Cook .....	do .....	
Geo. H. Powers .....	Watchman .....	Apr. 21, 1892	
John Hutchinson .....	Blacksmith .....	May 1, 1892	June 19, 1892.
C. M. Emmons .....	Resident student .....	June 16, 1892	
Zebulon Llowe .....	do .....	do .....	
John Lanahan .....	Blacksmith .....	June 20, 1892	

\* Promoted to overseer.

In estimates furnished appears an item for the construction of a storehouse and cooler, or cold room, for the preservation of meats, butter, fruit, etc. This is an important measure and should be provided for at once, as there are no cellars or storerooms large enough to contain the large amount of property received and disbursed daily. Also an estimate for a property clerk, whose duty it should be to receive and disburse all property and keep an accurate account of the same. The duties of the present clerk have increased to such an extent that assistance must be had, and while a portion of this work is now done by one of the overseers, it is a divided responsibility and liable to produce

unsatisfactory results. This responsibility should be placed on one man, and he should be given proper storerooms and held to account for the same. It would require all the time of a good man to do this work in a proper manner.

An elevator is also much needed in the almshouse for the transport of the old and infirm from their rooms on the upper floor to the ground floor of the building, and I hope it may be provided for.

The hospital department is in a fair condition, except the two wards for male patients. No. 1 ward, used for white males, is illy constructed, old, not worth repair, and unfit for hospital purposes. No. 2, the colored male ward, is but little better, but I believe by an expenditure of five or six hundred dollars it could be made to answer very well for some time to come. I have asked in submitted estimates for \$4,500 for the construction of a ward suitable for the white male patients, and trust that your honorable board will approve the same.

The annual report of Dr. J. Wesley Bovee, visiting physician to the asylum, giving in detail the operations of the medical department for the past year, and suggestions for increased usefulness, is herewith submitted. My thanks are due Dr. Bovee and Dr. J. E. Walsh, resident physician, for strict attention to their important duties in connection with the institution, and to the students and nurses of the hospital staff for their efficient work and uniform courtesy. My thanks are also due all other employes of the institution for faithful and prompt attention to duty, and I recommend that your honorable board not only use your best efforts to increase their pay, but encourage the efficient by promotion to higher grades, as the opportunity occurs.

Church services have been continued through the year as usual, each Sabbath, conducted by members of the different denominations, and it is to be hoped that much good has been accomplished.

In concluding this report, I desire to thank each of the honorable members of your board for your uniform kindness and continued confidence to myself, and for your earnest efforts and interest in the welfare of the institution; also, to each member of the visiting committee appointed by your honorable board.

Very respectfully,

WALTER H. STOUTENBURGH,  
*Intendant Washington Asylum.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

#### STATISTICAL TABLES.

##### WORKHOUSE.

Prisoners in workhouse July 1, 1891.....	316
Prisoners received .....	5, 063
	<hr/> 5, 379
Prisoners discharged.....	5, 048
Prisoners eloped .....	66
	<hr/> 5, 114
Total remaining in workhouse June 30, 1892.....	<hr/> 265

##### COLOR AND SEX.

White males.....	1, 401
White females.....	180
Colored males .....	2, 544
Colored females .....	938
	<hr/> 5, 063

*Social relations.*

	Single.	Married.	Total.	Can read and write.	Can not read or write.	Total.
White males.....	1, 133	268	1, 401	1, 218	183	1, 401
White females.....	116	64	180	137	43	180
Colored males.....	1, 941	603	2, 544	1, 523	1, 021	2, 544
Colored females.....	721	217	938	542	396	938
Total.....	3, 911	1, 152	5, 063	3, 420	1, 643	5, 063

*Number of times committed.*

	White males.		White females.		Colored males.		Colored females.	
	Number committed.	Number commitments.	Number committed.	Number commitments.	Number committed.	Number commitments.	Number committed.	Number commitments.
1 time.....	758	758	59	59	1, 215	1, 215	434	434
2 times.....	123	246	26	52	318	636	108	216
3 times.....	45	135	5	15	101	303	46	138
4 times.....	13	52	5	20	42	168	18	72
5 times.....	9	45	3	15	23	115	9	45
6 times.....	8	48	2	12	6	36	1	6
7 times.....	5	35	1	7	4	28	1	7
8 times.....	4	32			2	16	1	8
9 times.....	1	9			3	27		
10 times.....	3	30						
11 times.....	1	11						
12 times.....							1	12
Total.....	970	1, 401	101	180	1, 714	2, 544	619	938

*Ages.*

	White.		Colored.	
	Male.	Female.	Male.	Female.
15 years and under.....	6		258	62
16 to 20 years.....	110	6	765	345
Over 20 years.....	1, 285	174	1, 521	531
Total.....	1, 401	180	2, 544	938

*Nativity of inmates.*

State, country, etc.	Number.	State, country, etc.	Number.
<i>Native.</i>		<i>Foreign.</i>	
District of Columbia.....	2266	Texas.....	2
Virginia.....	1005	Arkansas.....	1
Maryland.....	777	Wisconsin.....	1
Pennsylvania.....	166	North Dakota.....	1
New York.....	139		4, 668
Massachusetts.....	30		
Ohio.....	28	Ireland.....	220
North Carolina.....	25	Germany.....	50
West Virginia.....	22	England.....	35
Kentucky.....	19	Canada.....	13
New Jersey.....	19	France.....	13
South Carolina.....	18	Scotland.....	11
Alabama.....	20	Switzerland.....	8
Georgia.....	17	West Indies.....	6
Connecticut.....	17	Italy.....	6
Rhode Island.....	15	Denmark.....	7
Tennessee.....	11	Russia.....	5
Maine.....	9	Wales.....	4
Indiana.....	8	Sweden.....	3
Delaware.....	8	South America.....	2
Louisiana.....	8	South Wales.....	1
Florida.....	8	Austria.....	1
Mississippi.....	5	Haiti.....	1
California.....	5	New Brunswick.....	1
New Hampshire.....	5	St. Helena.....	1
Illinois.....	5	Hungary.....	1
Missouri.....	5	Unknown.....	6
Vermont.....	4		
Michigan.....	3		
		Total.....	5, 063



*Charges.*

Charge.	Number.	Charge.	Number.
Disorderly.....	2,464	Violating health law.....	2
Vagrancy.....	1,613	Maintaining a nuisance.....	2
Profanity.....	245	Disorderly and breaking street lamp...	2
Disorderly and vagrancy.....	99	Firing pistol in street.....	1
Concealed weapons.....	97	Disorderly and defacing public property.	1
Indecent exposure.....	90	Disorderly, concealed weapons and dis-	
Disorderly and concealed weapons.....	46	charging firearms in street.....	1
Trespass on park.....	40	Indecent exposure and trespass on park.	1
Throwing missiles.....	32	Placing filth on private property.....	1
Violating police regulations.....	31	Disorderly, violating police regulations	
Keeping unlicensed bar.....	27	and cruelty to animals.....	1
Destroying private property.....	23	Vagrancy and destroying public prop-	
Cruelty to animals.....	20	erty.....	1
Profanity and vagrancy.....	20	Disorderly, destroying private property	
Fast driving.....	18	and throwing missiles.....	1
Disorderly and profanity.....	18	Disorderly, concealed weapons and tres-	
Vagrancy and concealed weapons.....	9	pass on park.....	1
Disorderly and throwing stones.....	9	Disorderly, profanity and indecent ex-	
Disorderly and destroying private prop-		posure.....	1
erty.....	9	Tying a horse to a tree.....	1
Disorderly and indecent exposure.....	8	Destroying trees in park.....	1
Obstructing sidewalk.....	6	Throwing stones and concealed weapons.	1
Disturbing church.....	6	Placing filth in street.....	1
Unlicensed produce dealer.....	6	Disorderly and unlicensed produce	
Vagrancy and indecent exposure.....	5	dealer.....	1
Obstructing street.....	5	Disturbing theatre.....	1
Disorderly and trespass on park.....	4	Failing to remove snow.....	1
Profanity and indecent exposure.....	4	Concealed weapons and cruelty to ani-	
Refusing to pay hack hire.....	4	mals.....	1
Destroying public property.....	3	Profanity, concealed weapons and dis-	
Profanity and concealed weapons.....	3	orderly.....	1
Failing to maintain distance between		Colliding with vehicle in street.....	1
carts.....	3	Disturbing assembly.....	1
Disorderly and violating police regula-		Vagrancy and trespass on park.....	1
tions.....	3	Profanity and trespass on park.....	1
Unlicensed junk dealer.....	3	Discharging firearms in street and con-	
Disturbing exhibition.....	3	cealed weapons.....	1
Vagrancy and destroying private prop-		Fast driving and colliding with vehicle..	1
erty.....	3	Obstructing street and disorderly.....	1
Fast driving and cruelty to animals.....	3	Refusing to pay hack hire and vagrancy	
Selling liquors on Sunday.....	3	Destroying a tree.....	1
Plucking flowers in park.....	3	Indecent exposure, disorderly and va-	
Vagrancy, concealed weapons and disor-		grancy.....	1
derly.....	2	Playing ball in street.....	1
Throwing missiles and vagrancy.....	2	Obstructing side walk, disorderly and	
Peddling without license.....	2	vagrancy.....	1
Disorderly and cruelty to animals.....	2	Eloped and recaptured.....	26
Fast driving and disorderly.....	2		
Profanity and destroying private prop-			
erty.....	2		5,063

*Occupation of inmates.*

Occupation.	Number.	Occupation.	Number.
Laborers.....	1,973	Blacksmiths.....	27
Laundresses.....	649	Hostlers.....	25
Servants.....	238	Newsboys.....	24
Drivers.....	233	Tailors.....	23
Seamstresses.....	125	Soldiers.....	23
Painters.....	101	Whitewashers.....	23
Carpenters.....	78	Hucksters.....	21
Waiters.....	62	Firemen.....	19
Plasterers.....	61	Old soldiers.....	19
Shoemakers.....	60	Hod carriers.....	18
Cooks.....	58	Stonecutters.....	17
Bricklayers.....	57	Cigar-makers.....	16
Barbers.....	48	Bakers.....	15
Printers.....	46	Farriers.....	14
Clerks.....	42	Pavers.....	12
Peddlers.....	42	Butchers.....	12
Tinners.....	42	Molders.....	10
Plumbers.....	34	Engineers.....	10
Sailors.....	33	Upholsterers.....	9
Farmers.....	30	Gardeners.....	8
Boothblacks.....	28	Machinists.....	8

## Occupation of inmates—Continued.

Occupation.	Number.	Occupation.	Number.
Coachmen .....	8	Mantle-setter .....	1
Harness-makers .....	8	Coachsmith .....	1
Tinkers .....	7	Draughtsman .....	1
Lawyers .....	6	Plate-printer .....	1
Bartenders .....	6	Wheelwright .....	1
Porters .....	6	Surveyor .....	1
Storekeepers .....	5	Chair maker .....	1
Attorneys .....	5	Chair-caner .....	1
Riggers .....	5	Detective .....	1
Salesmen .....	5	Druggist .....	1
Sheet ironworkers .....	5	Bleacher .....	1
Nurses .....	4	Florist .....	1
Lathers .....	4	Stone-polisher .....	1
Junk dealers .....	4	Spinner .....	1
Cabinetmakers .....	4	Umbrella-mender .....	1
Steam-fitters .....	4	Undertaker .....	1
Musicians .....	4	Rope-maker .....	1
Rag dealers .....	4	Cab-driver .....	1
Bookbinders .....	3	Hotel keeper .....	1
Well-diggers .....	3	Weaver .....	1
Housekeepers .....	3	Produce dealer .....	1
Carriage-painters .....	3	Can-maker .....	1
Stonemasons .....	3	Horse dealer .....	1
Bookkeepers .....	3	Ink manufacturer .....	1
Burnishers .....	3	Stair-builder .....	1
Grocers .....	3	Core-maker .....	1
Puddlers .....	3	Awning-maker .....	1
Laundrymen .....	2	Provision dealer .....	1
Linemen .....	2	Cement worker .....	1
Lithographers .....	2	Sailmaker .....	1
Cutlers .....	2	Doctor .....	1
Teachers .....	2	Teamster .....	1
Paperhangers .....	2	Foreman .....	1
Basket-makers .....	2	Potter .....	1
Brewers .....	2	Grainer .....	1
Caulkers .....	2	Minister .....	1
Boiler-makers .....	2	Canvasser .....	1
Trunk-makers .....	2	Bridge builder .....	1
Coopers .....	2	Janitor .....	1
Hatters .....	2	Dairyman .....	1
Brass-finishers .....	2	Truck-driver .....	1
Millers .....	2	Dyer .....	1
Riveters .....	2	Decorator .....	1
Broom-makers .....	2	Fruit dealer .....	1
Coal dealers .....	2	Marine .....	1
Gardeners .....	2	Mattress-maker .....	1
Miner .....	1	Slater .....	1
Artist .....	1	Glazier .....	1
Photographer .....	1	Civil engineer .....	1
Messenger .....	1	No occupation .....	451
Typesetter .....	1		
Clock-repairer .....	1		
Sign writer .....	1	Total .....	5,063

## ALMSHOUSE.

Inmates in almshouse July 1, 1891 .....	153
Inmates received .....	178
	<hr/>
Inmates discharged .....	331
Inmates died .....	175
	6
	<hr/>
Total June 30, 1892 .....	181
	<hr/>
	150

## COLOR AND SEX.

White males .....	74
White females .....	33
Colored males .....	40
Colored females .....	31
	<hr/>
Total .....	178

*Nativity of inmates.*

State, country, etc.	Number.	State, country, etc.	Number.
<i>Native.</i>		Ohio .....	1
District of Columbia.....	28		118
Virginia.....	43	<i>Foreign.</i>	
Maryland.....	26	Ireland.....	35
Pennsylvania.....	5	Germany.....	10
New York.....	4	Canada.....	4
North Carolina.....	4	England.....	5
Massachusetts.....	2	France.....	3
Kentucky.....	1	Switzerland.....	1
Rhode Island.....	1	Denmark.....	1
Vermont.....	1	Russia.....	1
Louisiana.....	1		178
South Carolina.....	1	Total .....	

## HOSPITAL.

Patients remaining in hospital July 1, 1891.....	64
Patients admitted from July 1, 1891, to June 30, 1892.....	509
Births from July 1, 1891, to June 30, 1892.....	21
Total .....	594
Patients discharged from hospital July 1, 1891, to June 30, 1892.....	459
Deaths.....	67
Remaining in hospital July 1, 1892.....	68
Total .....	594

	Number admitted.	Number born.
White males.....	209	3
White females.....	68	2
Colored males.....	139	9
Colored females.....	93	7

Admitted and born.....	530
Daily average in hospital.....	72

*Nativity of patients.*

State, country, etc.	Number.	State, country, etc.	Number.
Connecticut.....	1	Austria.....	1
District of Columbia.....	91	Canada.....	3
Delaware.....	1	England.....	10
Illinois.....	2	France.....	3
Indiana.....	2	Germany.....	28
Kentucky.....	1	Holland.....	1
Louisiana.....	1	Ireland.....	63
Maryland.....	95	Island of Malta.....	1
Massachusetts.....	5	Russia.....	1
Maine.....	2	Spain.....	1
New York.....	16	Wales.....	1
North Carolina.....	11	Total .....	113
New Jersey.....	1	Nativity unknown.....	15
New Hampshire.....	1	Grand total.....	509
Ohio.....	7		
Pennsylvania.....	26		
South Carolina.....	1		
Virginia.....	115		
Vermont.....	1		
West Virginia.....	1		
Total .....	381		

Number of prescriptions during the year, 22,330.



*Occupation of inmates—Continued.*

Occupation.	Number.	Occupation.	Number.
Coachmen .....	8	Mantle-setter .....	1
Harness-makers .....	8	Coachsmith .....	1
Tinkers .....	7	Draughtsman .....	1
Lawyers .....	6	Plate-printer .....	1
Bartenders .....	6	Wheelwright .....	1
Porters .....	6	Surveyor .....	1
Storekeepers .....	5	Chair maker .....	1
Attorneys .....	5	Chair-caner .....	1
Riggers .....	5	Detective .....	1
Salesmen .....	5	Druggist .....	1
Sheet ironworkers .....	5	Bleacher .....	1
Nurses .....	4	Florist .....	1
Lathers .....	4	Stone-polisher .....	1
Junk dealers .....	4	Spinner .....	1
Cabinetmakers .....	4	Umbrella-mender .....	1
Steam-fitters .....	4	Undertaker .....	1
Musicians .....	4	Rope-maker .....	1
Rag dealers .....	4	Cab-driver .....	1
Bookbinders .....	3	Hotel keeper .....	1
Well-diggers .....	3	Weaver .....	1
Housekeepers .....	3	Produce dealer .....	1
Carriage-painters .....	3	Can-maker .....	1
Stonemasons .....	3	Horse dealer .....	1
Bookkeepers .....	3	Ink manufacturer .....	1
Burnishers .....	3	Stair-builder .....	1
Grocers .....	3	Core-maker .....	1
Puddlers .....	3	Awning-maker .....	1
Laundrymen .....	2	Provision dealer .....	1
Linemen .....	2	Cement worker .....	1
Lithographers .....	2	Sailmaker .....	1
Cutlers .....	2	Doctor .....	1
Teachers .....	2	Teamster .....	1
Paperhangers .....	2	Foreman .....	1
Basket-makers .....	2	Potter .....	1
Brewers .....	2	Grainer .....	1
Caulkers .....	2	Minister .....	1
Boiler-makers .....	2	Canvasser .....	1
Trunk-makers .....	2	Bridge builder .....	1
Coopers .....	2	Janitor .....	1
Hatters .....	2	Dairyman .....	1
Brass-finishers .....	2	Truck-driver .....	1
Millers .....	2	Dyer .....	1
Riveters .....	2	Decorator .....	1
Broom-makers .....	2	Fruit dealer .....	1
Coal dealers .....	2	Marine .....	1
Gardeners .....	2	Mattress-maker .....	1
Miner .....	1	Slater .....	1
Artist .....	1	Glazier .....	1
Photographer .....	1	Civil engineer .....	1
Messenger .....	1	No occupation .....	451
Typesetter .....	1		
Clock-repairer .....	1		
Sign writer .....	1	Total .....	5,063

## ALMSHOUSE.

Inmates in almshouse July 1, 1891 .....	153
Inmates received .....	178
	331
Inmates discharged .....	175
Inmates died .....	6
	181
Total June 30, 1892 .....	150

## COLOR AND SEX.

White males .....	74
White females .....	33
Colored males .....	40
Colored females .....	31
Total .....	178

## Nativity of inmates.

State, country, etc.	Number.	State, country, etc.	Number.
<i>Native.</i>		Ohio .....	1
District of Columbia .....	28		118
Virginia .....	43	<i>Foreign.</i>	
Maryland .....	26	Ireland .....	35
Pennsylvania .....	5	Germany .....	10
New York .....	4	Canada .....	4
North Carolina .....	4	England .....	5
Massachusetts .....	2	France .....	3
Kentucky .....	1	Switzerland .....	1
Rhode Island .....	1	Denmark .....	1
Vermont .....	1	Russia .....	1
Louisiana .....	1		
South Carolina .....	1	Total .....	178

## HOSPITAL.

Patients remaining in hospital July 1, 1891 .....	64
Patients admitted from July 1, 1891, to June 30, 1892 .....	509
Births from July 1, 1891, to June 30, 1892 .....	21
Total .....	594
Patients discharged from hospital July 1, 1891, to June 30, 1892 .....	459
Deaths .....	67
Remaining in hospital July 1, 1892 .....	68
Total .....	594

	Number admitted.	Number born.
White males .....	209	3
White females .....	68	2
Colored males .....	139	9
Colored females .....	98	7

Admitted and born .....	530
Daily average in hospital .....	72

## Nativity of patients.

State, country, etc.	Number.	State, country, etc.	Number.
Connecticut .....	1	Austria .....	1
District of Columbia .....	91	Canada .....	3
Delaware .....	1	England .....	10
Illinois .....	2	France .....	3
Indiana .....	2	Germany .....	23
Kentucky .....	1	Holland .....	1
Louisiana .....	1	Ireland .....	13
Maryland .....	95	Island of Malta .....	1
Massachusetts .....	5	Russia .....	1
Maine .....	2	Spain .....	1
New York .....	16	Wales .....	4
North Carolina .....	11	Total .....	113
New Jersey .....	1	Nativity unknown .....	15
New Hampshire .....	1	Grand total .....	509
Ohio .....	7		
Pennsylvania .....	26		
South Carolina .....	1		
Virginia .....	115		
Vermont .....	1		
West Virginia .....	1		
Total .....	381		

Number of prescriptions during the year, 22,330.

*Causes of deaths.*

Diseases.	Number.	Diseases.	Number.
Ascites .....	1	Pneumonia .....	2
Carcinoma of the liver .....	1	Paresis .....	6
Cardiac rupture .....	1	Pulmonary congestion .....	1
Cerebral embolism .....	2	Premature birth .....	1
Cerebral softening .....	3	Phthisis .....	10
Convulsions, epileptic .....	1	Peritonitis .....	1
Diarrhea, chronic .....	2	Nephritis, chronic .....	2
Erysipelas .....	2	Nephritis, acute .....	1
Gangrene, senile .....	1	Paralysis .....	2
Hemorrhage, cerebral .....	3	Senility .....	16
Hemorrhage, umbilical .....	1	Stricture of oesophagus .....	1
La grippe .....	1	Sclerosis of spinal cord .....	1
Mitral regurgitation .....	8		
Ovarian tumor .....	2	Total .....	73

Of these, six died at the almshouse.

*Surgical operations performed.*

Operation.	Number.	Operation.	Number.
Amputation of finger .....	2	Perinæorrhaphy, secondary .....	1
Amputation of leg .....	1	Ovarian cyst, laparotomy for .....	1
Curvetting uteri .....	3	Ovarian tumor, laparotomy for .....	1
Circumcision .....	6	Sebaceous cyst, removal of .....	1
Excision of superior maxillary .....	1	Tonsillotomy .....	1
Incision of abscesses .....	16	Stricture, urethral, dilated .....	3
Hæmorrhoids ligated .....	1	Operations for fistula in ano .....	3
Reduction of dislocation, humerus sub-clavian .....	1		
Trachelorrhaphy .....	2	Total .....	50
Perinæorrhaphy, primary .....	6		

*Diseases treated.*

Diseases.	Number.	Diseases.	Number.
Amaurosis .....	1	Enteralgia .....	3
Alcoholism .....	85	Erysipelas, face .....	4
Abortion .....	1	Endometritis .....	1
Asthma .....	1	Epilepsy .....	3
Anasarca .....	1	Eczema .....	4
Aphasia .....	1	Eclampsia .....	1
Abscesses:		Fistula in ano .....	3
Supraorbital .....	1	Fractures:	
Mammary .....	1	Fibula .....	3
Ear .....	2	Femur .....	1
Perineum, male .....	2	Colles's .....	1
Bronchitis:		Rib .....	1
Acute .....	8	Potts's .....	1
Chronic .....	23	Furuncles .....	1
Buboes .....	2	Frostbites .....	2
Burn, carbolic-acid .....	1	Gonorrhœa .....	5
Constipation .....	2	Gunshot wound .....	2
Conjunctivitis .....	1	Hemiplegia .....	2
Carcinoma of liver .....	1	Hemorrhages:	
Carcinoma of breast .....	1	Umbilical .....	1
Catalepsy .....	2	Cerebral .....	4
Cerebral softening .....	1	Hernia .....	1
Cerebral embolism .....	1	Fevers:	
Cystocele .....	1	Intermittent .....	10
Cyst:		Typhoid .....	2
Ovarian .....	2	Insanity .....	15
Sebaceous .....	1	Injury to spine .....	3
Chaneroids .....	2	Keratitis .....	1
Coup de soleil .....	1	Lupus .....	1
Debility .....	10	Lacerated perineum .....	2
Diarrhœa:		Lacerated cervix .....	2
Acute .....	7	La Grippe .....	7
Chronic .....	6	Myalgia .....	3
Dislocation of humerus .....	2	Mitral regurgitation .....	13
Dyspepsia .....	1	Malingers .....	5
Dermatitis .....	1		



*Diseases treated—Continued.*

Diseases.	Number.	Diseases.	Number.
Morphia habit.....	1	Rheumatism:	
Miscarriage.....	1	Acute.....	1
Necrosis.....	3	Chronic.....	37
Nephritis:		Rheumatoid arthritis.....	1
Acute.....	1	Senility.....	30
Chronic.....	3	Stricture:	
Orchitis.....	2	Urethral.....	5
Opacity of cornea.....	1	Rectal.....	1
Phimosis.....	3	Syphilis.....	11
Phthisis.....	15	Sprain:	
Pregnancy.....	33	Foot.....	1
Paralysis.....	5	Ankle.....	8
Pneumonia.....	3	Tonsillitis, chronic.....	1
Pleurisy.....	1	Ulcers:	
Psoriasis.....	1	Cornea.....	1
Pseudocyesis.....	1	Leg.....	21
Paresis.....	7	Varicose vein.....	1
Peritonitis, acute.....	1	Whitlow.....	1
Pediculosis.....	1	Wounds:	
Pharyngitis.....	1	Contused.....	11
Prolapsus ani.....	1	Incised.....	5

## RECAPITULATION.

*Daily average number of inmates in the institution for year ending June 30, 1892.*

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Workhouse.....	77	16	138	65	296
Almshouse.....	47	28	53	47	175
Hospital.....	21	13	22	16	72
Total.....	145	57	213	128	543

*Detailed account of receipts and expenditures of Washington Asylum from July 1, 1891, to June 30, 1892.*

## SALARIES.

W. H. Stoutenburgh, intendant.....	\$1,200.00
J. W. Bovee, visiting physician.....	1,080.00
J. E. Walsh, resident physician.....	480.00
D. Tindall, clerk.....	600.00
J. W. Lowe, matron.....	600.00
E. B. Reed, trained nurse.....	420.00
H. Miller, baker.....	420.00
W. C. Thompson, overseer.....	900.00
G. Martin, overseer.....	600.00
C. C. Bury, overseer.....	600.00
M. Shea, overseer.....	218.46
J. Hammond, overseer.....	450.00
J. P. Stosch, overseer.....	600.00
H. M. Davis, overseer.....	150.00
J. A. Milstead, engineer.....	600.00
J. D. C. Stoutenburgh, assistant engineer.....	350.00
B. C. Sears, assistant engineer.....	300.00
F. McEntee, watchman.....	365.00
F. T. Auldridge, watchman.....	365.00
D. Stewart, watchman.....	30.75
J. W. Lowe, watchman.....	293.82
A. Youst, overseer and watchman.....	514.45
J. D. B. Littell, watchman.....	25.79
W. H. Arnold, watchman.....	293.58
J. Coghlan, watchman.....	232.09
G. H. Powers, watchman.....	71.18

# 218 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## SALARIES—continued.

Adda Hammond, keeper, female workhouse .....	\$225. 00
Martha Davis, keeper, female workhouse .....	75. 00
Maggie Wall, keeper, female workhouse .....	180. 00
F. Talbert, blacksmith .....	75. 00
J. Lanahan, blacksmith .....	183. 74
J. Hutchinson, blacksmith .....	41. 26
J. A. O'Connor, tailor .....	5. 68
J. N. Ehret, tailor .....	49. 73
G. Sabien, tailor .....	238. 01
W. H. Cook, hostler .....	240. 00
Ella Boston, cook .....	120. 00
Elizabeth Douglass, cook .....	13. 36
Elizabeth Brown, cook .....	60. 00
John Steele, cook .....	59. 02
Edward Rockett, cook .....	18. 59
Betty Jackson, cook .....	69. 80
William Robinson, cook .....	90. 00
Marian Wells, cook .....	30. 00
Edward Smith, nurse .....	60. 00
Addie Lucas, nurse .....	60. 00
William Gwathney, nurse .....	60. 00
Margaret McLean, nurse .....	21. 68
Jennie Vance, nurse .....	2. 44
Agnes Reeves, nurse .....	38. 32
Lucy Robinson, nurse .....	29. 12
Total .....	13, 805. 87

## CONTINGENT EXPENSES.

1891.  
July.

J. B. Bryan & Bro., groceries .....	638. 12
J. B. Bryan & Bro., potatoes .....	50. 40
Jas. L. Barbour & Son, groceries .....	512. 51
Wm. M. Galt & Co., flour and forage .....	611. 91
J. H. Buscher, fresh meat .....	398. 50
W. T. Galliher & Bro., lumber .....	73. 04
E. L. Kengla, fresh and corned meat .....	240. 59
Scheller & Stevens, drugs .....	57. 98
R. J. Kennedy, fuel .....	187. 80
H. I. Gregory, hardware and tinware .....	71. 59
E. G. Wheeler, hardware .....	48. 03
R. J. Kennedy, fuel .....	1, 518. 16
W. B. Moses & Son, matting, window shades, etc. ....	41. 04
Geo. Ryneal, paint brushes, etc. ....	136. 45
W. L. King & Bro., sole leather .....	27. 47
Independent Ice Company, ice .....	24. 81
F. P. May & Co., hardware .....	19. 00
Wm. Ballantyne & Son, stationery .....	17. 34
C. Weisenborn, yeast .....	17. 15
Hugh Riley, paints, etc. ....	14. 58
M. G. Copeland, awnings .....	13. 50
Jackson & Co., marketing .....	8. 73
Pettit & Dripps, repairs to boilers .....	7. 50
F. P. May & Co., hardware .....	7. 35
Judd & Detweiler, printing .....	7. 00
B. S. Adams, printing .....	6. 50
A. R. Williams, lime .....	5. 35
J. H. Chesley & Co., hardware .....	5. 27
Cannon & Chandler, fruits and vegetables .....	4. 75
W. H. Butler, paints, etc. ....	4. 70
W. J. C. Dulaney, stationery .....	4. 20
E. C. Gatchell, carpenter .....	78. 75
P. Talbert, watchman .....	52. 50
E. Wallingsford, night watchman .....	46. 50
J. Coghlan, watchman .....	38. 75

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 219

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## CONTINGENT EXPENSES—continued.

1891.		
July	M. W. Kent, ambulance driver.....	\$38. 75
	T. Urban, gardener.....	16. 20
	T. Cook, herdsman.....	20. 15
Aug.	J. B. Bryan & Bro., groceries.....	664. 86
	W. M. Galt & Co., flour and forage.....	660. 04
	Jas. L. Barbour & Son, groceries.....	579. 94
	Frank Hume, groceries.....	570. 99
	J. H. Buscher, fresh meat.....	401. 45
	E. L. Kengla, fresh and corned meat.....	230. 61
	J. W. Boteler & Son, dishes, etc.....	96. 55
	J. B. Bryan & Son, potatoes.....	44. 85
	Chas. T. Carter, hardware.....	42. 94
	Scheller & Stevens, drugs, etc.....	40. 38
	Independent Ice Company, ice.....	25. 70
	Z. D. Gilman, drugs, etc.....	22. 67
	E. G. Wheeler, hardware.....	22. 51
	Fred. Howe & Co., plumbers' material.....	19. 82
	Henry McShane & Co., plumbers' material.....	18. 70
	C. Weisenborn, yeast.....	15. 75
	Geo. Ryneal, paints, etc.....	8. 85
	E. C. Gatchell, carpenter.....	56. 25
	P. Talbert, watchman.....	54. 25
	E. Wallingsford, night watchman.....	46. 50
	J. Coghlan, watchman.....	38. 75
	M. W. Kent, ambulance driver.....	38. 75
	F. Bloomer, watchman.....	11. 25
	T. Urban, gardener.....	15. 60
	T. Cook, herdsman.....	20. 15
	J. Vance, laborer.....	15. 00
	Cannon & Chandler, vegetables, etc.....	7. 25
	J. McDermott & Bro., repairs to wagon.....	7. 00
	Jackson & Co., marketing.....	6. 97
	E. Morrison Paper Company, toilet paper.....	5. 65
	Tschiffely & Evans, combs.....	4. 65
	Wm. Ballantyne & Son, stationery.....	3. 84
	J. H. Chesley & Co., hardware.....	3. 75
	J. H. Chesley & Co., hardware.....	2. 89
Sept.	B. Rich & Son, dry goods, shoes, etc.....	964. 01
	Lansburgh & Bro., dry goods.....	822. 99
	W. M. Galt & Co., flour and forage.....	788. 08
	J. B. Bryan & Bro., groceries.....	657. 20
	J. H. Buscher, fresh meat.....	380. 66
	Frank Hume, groceries.....	276. 95
	W. E. Muncaster, 4 cows.....	210. 00
	Chas. T. Carter, hardware.....	80. 17
	Henry Lyles, sand.....	60. 00
	Scheller & Stevens, drugs, etc.....	53. 12
	E. G. Wheeler, hardware.....	50. 89
	H. I. Gregory, stove grates, tinware, etc.....	49. 00
	Geo. Holmes, potatoes.....	34. 50
	W. L. King & Bro, sole leather.....	26. 46
	A. R. Williams, lime.....	19. 00
	W. H. Butler, paints, etc.....	15. 76
	D. H. Staley, pigs.....	15. 00
	Geo. Holmes, potatoes.....	15. 00
	W. E. Muncaster, 2 sows.....	12. 00
	Cannon & Chandler, vegetables, fruit, etc.....	11. 85
	A. R. Williams, lime.....	9. 50
	Geo. H. Gaddis, 2 sewing-machine treadles.....	7. 00
	C. Becker, 2 whips.....	1. 30
	E. C. Gatchell, carpenter.....	69. 00
	P. Talbert, watchman.....	52. 50
	E. Wallingsford, night watchman.....	45. 00
	J. Coghlan, watchman.....	37. 50
	M. W. Kent, ambulance driver.....	37. 50



# 220 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.

## CONTINGENT EXPENSES—continued.

1891.		
Sept.	J. H. McChesney, laborer.....	\$17.50
	F. Bloomer, watchman.....	20.00
	J. Lanahan, laborer.....	6.00
	T. Urban, gardener.....	15.60
	T. Cook, herdsman.....	19.50
	M. Hurdle, painter.....	21.00
	C. Weisenborn, yeast.....	15.40
	Geo. Ryneal, paints, etc.....	5.20
	Jas. L. Barbour & Son, groceries.....	601.98
	E. L. Kengla, fresh and corned meat.....	240.50
	A. R. Williams, lime.....	23.75
	Independent Ice Company, ice.....	23.53
	Geo. A. Green, 1 iron water tank.....	218.00
	M. W. Beveidge, water cooler, cuspadors, etc.....	55.60
	John A. Baker, garden seed.....	33.05
	Henry McShane & Co., plumber's supplies.....	26.11
	R. Harris, clocks and repairs.....	17.25
	F. P. May & Co., hardware.....	13.37
	Jackson & Co., marketing.....	13.01
	V. B. Johnson, charcoal.....	2.50
Oct.	Jas. L. Barbour & Son, groceries.....	724.27
	J. B. Bryan & Bro., groceries.....	704.13
	B. Rich & Son, drygoods and shoes.....	536.95
	M. W. Galt & Co., flour and forage.....	504.07
	J. H. Buscher, fresh meat.....	433.95
	Frank Hume, groceries.....	307.85
	E. L. Kengla, fresh and corned meat.....	234.27
	Schiller & Stevens, drugs, etc.....	50.06
	Cannon & Chandler, vegetables, etc.....	37.50
	E. G. Wheeler, hardware.....	31.14
	Washington Gaslight Company, July, gas.....	25.75
	Washington Gaslight Company, August, gas.....	15.38
	Washington Gaslight Company, September, gas.....	40.38
	Washington Gaslight Company, October, gas.....	53.75
	T. W. Smith, lumber.....	50.10
	W. L. King & Bro., sole leather.....	27.73
	Libbey, Bittinger & Miller, lumber.....	23.00
	Independent Ice Company, ice.....	20.73
	E. H. Jones, vegetables.....	18.00
	C. Weisenborn, yeast.....	16.80
	Geo. Holmes, vegetables, etc.....	15.00
	Henry Lyles, sand.....	15.00
	Cannon & Chandler, vegetables, etc.....	14.56
	Jackson & Co., marketing.....	9.95
	E. C. Gatchell, carpenter.....	33.00
	P. Talbert, watchman.....	54.25
	E. Wallingsford, night watchman.....	46.50
	J. Coghlan, watchman.....	38.75
	M. W. Kent, ambulance driver.....	38.75
	F. Bloomer, watchman.....	38.75
	A. St. A. Smith, watchman.....	31.50
	T. Urban, gardener.....	16.20
	T. Cook, herdsman.....	20.15
	J. Gillian, carpenter.....	1.25
	W. J. C. Dulaney, stationery.....	8.18
	H. I. Gregory, fireclay and tinware.....	7.00
	Chas. T. Carter, hardware.....	5.78
	J. H. Chesley & Co., hardware.....	.19
	Geo. Ryneal, paints, etc.....	5.20
	Wm. Ballantyne, stationery.....	5.20
	B. S. Adams, printing, etc.....	7.43
	J. H. Chesney, laborer.....	17.50
	W. E. Muncaster, 1 Berkshire boar.....	28.00
	Z. D. Gilman, drugs, etc.....	94.77
	E. F. Brooks, gas fixtures.....	18.73
	Joseph Anerbach, underwear.....	289.80
	R. J. Kennedy, fuel.....	725.84

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## CONTINGENT EXPENSES—continued.

1891.		
Oct.	J. B. Kendall, blacksmith's forge etc.....	\$16.00
	M. W. Beveridge, jars and tin buckets.....	12.05
	Fred Stone & Co., plumber's material.....	3.16
	J. B. Kendall, 1 pair shafts and singletree.....	1.25
Nov.	J. B. Bryan & Bro., groceries.....	711.81
	W. M. Galt & Co., flour and forage.....	632.57
	Jas. L. Barbour & Son, groceries.....	443.93
	W. L. Galliher & Bro., lumber.....	370.68
	J. H. Buscher, fresh meat.....	366.36
	Lansburgh & Bro., dry goods.....	326.34
	Frank Hume, groceries.....	299.99
	E. L. Kengla, fresh and corned meat.....	211.90
	B. Rich & Son, shoes.....	131.40
	Cannon & Chandler, vegetables, etc.....	81.55
	Washington Gaslight Company, gas.....	79.75
	H. I. Gregory, stove fixtures, etc.....	66.45
	Z. D. Gilman, drugs, etc.....	54.46
	P. Talbert, watchman.....	48.13
	E. Wallingsford, night watchman.....	45.00
	J. Coghlan, watchman.....	13.75
	M. W. Kent, ambulance driver.....	37.50
	F. Bloomer, watchman.....	37.50
	A. St. A. Smith, watchman.....	52.50
	J. Gillian, carpenter.....	30.00
	W. Webster, laborer.....	4.25
	T. Urban, gardener.....	14.40
	T. Cook, herdsman.....	19.50
	M. Hurdle, painter.....	24.00
	Scheller & Stevens, drug, etc.....	53.47
	J. W. Boteler & Son, knives, dishes, etc.....	46.55
	E. G. Wheeler, hardware.....	42.10
	C. Becker, harness, etc.....	29.41
	W. A. Pate, hardware, etc.....	23.20
	Rabbit & Crown, poultry.....	22.50
	C. Weisenbener, yeast.....	17.32
	Independent Ice Company, ice.....	13.59
	Jackson & Co., marketing.....	13.27
	J. H. Chesley & Co., hardware.....	11.56
	Geo. A. Green, 1 ball cock for tank.....	5.00
	Lewis Baar, machine needles.....	2.04
Dec.	J. B. Bryan & Bro., groceries.....	749.96
	W. M. Galt & Co., flour and forage.....	604.16
	F. Hume, groceries.....	297.76
	B. Rich & Son, dry goods and shoes.....	218.68
	Lewis Myers, mattresses.....	140.00
	H. I. Gregory, tin and iron ware.....	39.26
	Chas. T. Carter, hardware.....	10.71
	Chas. T. Carter, hardware.....	31.06
	Jackson, Jones Company, lime.....	26.25
	Pettit & Dripps, repairs to boiler.....	18.30
	J. H. Buscher, fresh meat.....	414.71
	E. L. Kengla, fresh and corned meat.....	242.33
	Pettit & Dripps, grate bars.....	130.90
	Cannon & Chandler, vegetables, etc.....	120.25
	Rabbit & Crown, poultry.....	112.50
	Washington Gaslight Company, gas.....	87.00
	Geo. A. Green, plumber's material.....	52.00
	Scheller & Stevens, drugs, etc.....	53.51
	P. Talbert, watchman.....	54.25
	E. Wallingsford, night watchman.....	46.50
	M. W. Kent, ambulance driver.....	38.75
	F. Bloomer, watchman.....	38.75
	A. St. A. Smith, watchman.....	54.25
	J. Gillian, carpenter.....	32.50
	M. Hurdle, painter.....	26.00
	T. Cook, herdsman.....	20.15

## 222 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## CONTINGENT EXPENSES—continued.

1891.			
Dec.	T. Urban, gardener .....	\$10.80	
	W. Webster, laborer .....	7.75	
	J. B. Bryan & Bro., groceries .....	29.00	
	W. E. Clark & Co., seed .....	17.45	
	Cannon & Chandler, vegetables, etc. ....	10.11	
	H. I. Gregory, tin plates .....	7.50	
	J. H. Chesley & Co., hardware .....	3.98	
	E. G. Wheeler, hardware .....	2.50	
	Hugh Reilly, paints, etc. ....	2.25	
	John A. Baker, plowshares .....	1.41	
	Z. D. Gilman, drugs .....	17.37	
	Independent Ice Company, ice .....	14.07	
	Tschiffley & Evans, combs, etc. ....	9.50	
	Lutz Bro., repairing harness .....	4.25	
	C. Weisenborn, yeast .....	19.60	
	Henry McShane & Co., plumber's supplies ..	9.26	
	Fred. Stone & Co., iron pipe .....	7.09	
	W. J. C. Dulaney, stationery .....	3.36	
	J. G. & J. M. Waters, cement .....	2.50	
	Jas. L. Barbour & Son, groceries .....	461.44	
	W. B. Moses & Son, mattress .....	92.50	
	F. P. May & Co., hardware .....	63.30	
	M. W. Beveridge, kitchen utensils, dishes, etc.	54.90	
	Libbey, Bittinger & Miller, lumber .....	28.75	
1892.	Jackson & Co., marketing .....	9.43	
Jan.	Jas. L. Barbour & Son, groceries .....	537.21	
	J. B. Bryan & Bro., groceries .....	381.18	
	J. H. Buscher, fresh meat .....	379.78	
	W. M. Galt & Co., flour and forage .....	350.75	
	E. L. Kengla, fresh and corned meat .....	217.04	
	W. T. Galliher & Bro., lumber .....	133.92	
	B. Rich & Son, shoes and dry goods .....	131.26	
	Washington Gaslight Company, gas .....	83.75	
	Cannon & Chandler, vegetables, etc. ....	82.50	
	Scheller & Stevens, drugs, etc. ....	53.30	
	Rabbit & Crown, poultry .....	40.00	
	B. S. Adams, stationery .....	34.95	
	W. L. King & Bro., sole leather .....	27.00	
	Chas. T. Carter & Co., hardware .....	23.66	
	C. Weisenborn, yeast .....	18.20	
	H. I. Gregory, stove and fixtures .....	17.60	
	Independent Ice Company, ice .....	12.23	
	Public Printer, printing .....	9.38	
	John McDermott & Bro., repairs to carriage ..	9.00	
	Cannon & Chandler, vegetables, etc. ....	7.29	
	Jackson & Co., marketing .....	6.16	
	E. G. Wheeler, hardware .....	6.12	
	J. B. Kendall, wagon material .....	5.25	
	Z. D. Gilman, drugs .....	22.65	
	F. P. May, hardware .....	2.60	
	P. Talbert, watchman .....	43.75	
	E. Wallingsford, night watchman .....	46.50	
	M. W. Kent, ambulance driver .....	38.75	
	F. Bloomer, watchman .....	38.75	
	J. Gillian, carpenter .....	31.25	
	M. Hurdle, painter .....	15.00	
	T. Cook, herdsman .....	20.15	
	T. Urban, gardener .....	6.00	
	W. Webster, laborer .....	7.75	
	A. St. A. Smith .....	12.25	
	H. J. Hardy, carpenter .....	22.50	
Feb.	J. B. Bryan & Bro., groceries .....	566.76	
	W. M. Galt & Co., flour and forage .....	594.02	
	Frank Hume, groceries .....	531.42	
	B. Rich & Son, shoes and dry goods .....	154.98	
	Geo. Ryneal, paints .....	29.10	



Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.

## CONTINGENT EXPENSES—continued.

1892.			
Feb.	W. H. Butler, paints.....	\$28.00	
	J. H. Chesley & Co., hardware.....	9.53	
	W. J. C. Dulaney, stationery.....	5.04	
	F. J. Donnelly, City Directory.....	4.50	
	J. H. Buscher, fresh meat.....	378.63	
	Jas. L. Barbour & Son, groceries.....	450.83	
	Lansburgh & Bro., dry goods.....	298.84	
	R. J. Kennedy, fuel.....	122.00	
	Cannon & Chandler, vegetables, etc.....	78.00	
	Scheller & Stevens, drugs, etc.....	70.96	
	Washington Gaslight Company, gas.....	69.50	
	J. H. Birch, oysters.....	60.00	
	E. Jackson, cart harness.....	44.00	
	E. G. Wheeler, hardware.....	28.86	
	P. Talbert, watchman.....	49.00	
	E. Wallingsford, night-watchman.....	43.50	
	M. W. Kent, ambulance driver.....	36.25	
	F. Bloomer, watchman.....	36.25	
	J. Gillian, carpenter.....	31.25	
	T. Cook, herdsman.....	18.85	
	T. Urban, gardener.....	15.00	
	W. Webster, laborer.....	7.25	
	Cannon & Chandler, vegetables, etc.....	11.75	
	C. Weisenborn, yeast.....	14.88	
	Fred. Stone & Co., plumber material.....	13.81	
	Cannon & Chandler, vegetables, etc.....	9.94	
	Jackson & Co., marketing.....	8.71	
	E. Morrison Paper Company, toilet paper.....	4.50	
	Geo. Ryneal, turpentine.....	.43	
	Insurance, July.....	322.49	
	Insurance, August.....	60.00	
	R. Leitch & Son.....	2.40	
	Independent Ice Company, ice.....	12.81	
	W. T. Galliher & Bro., lumber.....	18.85	
	Wm. Ballantyne & Son, stationery.....	42.17	
	E. L. Kengla, fresh and corned meat.....	230.60	
	Jackson-Jones Company, lime.....	7.50	
	Rabbit & Crown, poultry.....	16.00	
Mar.	W. M. Galt & Co., flour and forage.....	687.09	
	J. B. Bryan & Co., groceries.....	479.88	
	J. B. Bryan & Co., groceries.....	37.00	
	J. H. Buscher, fresh meat.....	400.38	
	F. Hume, groceries.....	288.56	
	E. L. Kengla, fresh and corned meat.....	258.85	
	B. Rice & Son, shoes and dry goods.....	114.45	
	Washington Gaslight Company, gas.....	65.25	
	M. W. Beveridge, lamps, crockery, etc.....	46.01	
	Cannon & Chandler, vegetables, etc.....	37.80	
	Z. D. Gilman, drugs.....	36.28	
	Scheller & Stevens, drugs.....	35.32	
	W. B. Moses & Son, furniture.....	16.00	
	H. I. Gregory, stove fixtures.....	15.50	
	C. Weisenborn, yeast.....	15.40	
	E. G. Wheeler, hardware.....	13.91	
	P. Talbert, watchman.....	54.25	
	E. Wallingsford, night watchman.....	46.50	
	M. W. Kent, ambulance driver.....	38.75	
	F. Bloomer, watchman.....	38.75	
	T. Cook, herdsman.....	20.15	
	T. Urban, gardener.....	16.20	
	D. P. Barrett, laborer.....	5.60	
	Cannon & Chandler, vegetables, etc.....	9.91	
	Jackson & Co., marketing.....	8.04	
	Wm. Wood & Co., medical journals.....	8.00	
	J. Baumgarten, branding irons.....	1.50	
	Wm. Ballantyne & Son, stationery.....	1.02	

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## CONTINGENT EXPENSES—continued.

1892.

Mar.	J. L. Barbour & Son, groceries.....	\$516.27
	R. J. Kennedy, fuel.....	376.50
	E. H. Jones, fruit trees.....	63.50
	J. H. Birch, oysters.....	33.00
	W. H. Butler, paints, etc.....	24.94
	Fred. Stone, plumbers' material.....	14.97
	Independent Ice Company, ice.....	13.68
	C. Becker, curry combs and brushes.....	12.05
	Tschiffely & Evans, combs.....	4.50
	F. O. May & Co., hardware.....	34.73
	W. E. Clark & Co., garden seed.....	62.33
	W. A. Pate, door hangers.....	1.00
	F. P. May & Co., hardware.....	47.03
Apr.	W. M. Galt & Co., flour and forage.....	721.88
	J. B. Bryan & Bro., groceries.....	504.63
	Jas. L. Barbour & Son, groceries.....	430.61
	Frank Hume, groceries.....	265.14
	E. L. Kengla, fresh and corned meat.....	237.40
	Cannon & Chandler, vegetables, etc.....	67.75
	Washington Gaslight Company, gas.....	45.50
	W. L. King & Bro., leather.....	34.60
	W. T. Galliher & Bro., lumber.....	27.76
	Independent Ice Company, ice.....	20.11
	P. Talbert, watchman.....	50.75
	E. Wallingsford, night watchman.....	45.00
	F. Bloomer, watchman.....	37.50
	J. Gillian, carpenter.....	12.00
	T. Cook, herdsman.....	19.50
	T. Urban, gardener.....	15.60
	M. W. Kent, ambulance driver.....	25.00
	D. P. Barrett, laborer.....	12.00
	C. Weisenborn, yeast.....	15.40
	Cannon & Chandler, vegetables, etc.....	14.90
	H. I. Gregory, tin cups.....	14.40
	Scheller & Stevens, drugs.....	14.09
	Jackson & Co., marketing.....	8.29
	Z. D. Gilman, drugs.....	7.09
	J. H. Chesley, hardware.....	4.08
	Hugh Riley, paints.....	2.10
May	J. B. Bryan & Bro., groceries.....	418.63
	J. H. Buscher, fresh meat, April.....	402.94
	J. H. Buscher, fresh meat, May.....	343.57
	B. Rich & Son, shoes.....	135.03
	Chas. T. Carter, hardware.....	46.19
	Lansburgh & Bro., dry goods.....	44.05
	Cannon & Chandler, vegetables, etc.....	42.00
	Rabbit & Crown, poultry.....	32.00
	Washington Gaslight Company.....	27.50
	W. T. Galliher & Bro., lumber.....	18.85
	Scheller & Stevens, drugs.....	13.59
	Cannon & Chandler, vegetables, etc.....	12.73
	Wm. Ballantyne & Son, stationery.....	2.08
	P. Talbot, watchman.....	50.75
	E. Wallingsford, night watchman.....	46.50
	F. Bloomer, watchman.....	38.75
	J. Gillian, carpenter.....	39.00
	T. Cook, herdsman.....	20.15
	T. Urban, gardener.....	15.60
	D. P. Barrett, laborer.....	3.20
	Jas. L. Barbour & Son, groceries.....	297.65
	E. L. Kengla, fresh and corned meat.....	217.79
	Jackson & Co., marketing.....	7.57
	Z. D. Gilman, drugs.....	6.13
	W. E. Stockett & Co., record book.....	15.00
	C. Weisenborn, yeast.....	15.93
	W. M. Galt & Co., flour and forage.....	514.40

## REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 225

*Detailed account of receipts and expenditures of Washington Asylum, etc.—Continued.*

## CONTINGENT EXPENSES—continued.

1892.

June	E. G. Wheeler, hardware .....	\$5. 88
	J. B. Bryan & Bro., groceries .....	559. 41
	Frank Hume .....	549. 15
	Geo. Ryneal, paints, etc .....	20. 51
	W. M. Galt & Co., flour, etc .....	251. 70
	Washington Flour and Feed Company, forage .....	229. 69
	Independent Ice Company, ice .....	22. 05
	Wm. Ballantyne & Son, stationery .....	2. 00
	J. H. Buscher, fresh meat .....	356. 79
	Jas. L. Barbour & Son, groceries .....	348. 11
	Cannon & Chandler, potatoes .....	46. 75
	P. Talbert, watchman .....	50. 75
	E. Wallingford, night watchman .....	45. 00
	F. Bloomer, watchman .....	37. 50
	J. Gillian, carpenter .....	39. 00
	T. Cook, herdsman .....	19. 50
	T. Urban, gardener .....	15. 60
	Washington Gaslight Company, gas .....	22. 63
	W. T. Galliher & Bro., lumber .....	18. 77
	Cannon & Chandler, fruit, etc .....	8. 41
	Jackson & Co., marketing .....	8. 19
	Z. D. Gilman, drugs .....	2. 42
	E. L. Kengla, fresh and corned meat .....	239. 71
	R. J. Kennedy, fuel .....	34. 40
	Independent Ice Company, ice .....	28. 32
	C. Weisenborn, compressed yeast .....	14. 88
	Scheller & Stevens, drugs .....	15. 65
	Chas. T. Carter, hardware .....	4. 94
	Henry McShane & Co., plumbers' supplies .....	2. 11
	W. E. Clark & Co., seed corn .....	5. 00
	Lansburgh & Bro., dry goods .....	9. 25
	Woodward & Lothrop, dry goods .....	92. 14
	Wm. Ballantyne & Son, stationery .....	42
	J. McDermott & Bro., wagon .....	200. 00
	Jackson, Jones & Co., lime .....	7. 50

Total .....	\$49,688. 84
-------------	--------------

*Appropriations for support of the institution for the fiscal year ending June 30, 1892.*

For contingent expenses .....	\$50,000. 00	
Expended .....	49,688. 84	
Unexpended balance .....		311. 16
For salaries .....	13,875. 00	
Expended .....	13,805. 87	
Unexpended balance .....		69. 13
For building and fitting addition to female workhouse .....	25,000. 00	
Expended .....	24,956. 04	
Unexpended balance .....		43. 96
For inclosing portion of reservation for burial ground .....	550. 00	
Expended .....	549. 52	
Unexpended balance .....		. 48
For furniture for hospital and dining room .....	800. 00	
Expended .....	791. 44	
Unexpended balance .....		8. 56
For completing dining room for new operating ward .....	500. 00	
Expended .....	498. 48	
Unexpended balance .....		1. 52
Total unexpended balance .....		434. 81



# 226 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Daily average number of persons in the institution for the year ending June 30, 1892.*

Workhouse .....	296
Almshouse .....	175
Hospital .....	72
Employés .....	44
Total .....	587

## Cost per capita:

With attendance .....	108.17
Without attendance .....	84.64

WASHINGTON ASYLUM,  
July 23, 1892.

GENTLEMEN: I herewith submit for your consideration an estimate for the maintenance of the Washington Asylum and the improvements needed for the year ending June 30, 1893.

For contingent expenses including provisions, fuel, forage, groceries, meats, dry goods, shoes, lumber, hardware, medicine, gas, ice, repairs, paints, tools, extra services and other necessary articles, \$60,000, based on a daily average of 600 persons at \$100 dollars each per annum .....	\$60,000.00
For one hospital ward for white men .....	4,500.00
For repairs to buildings including new floors in almshouse halls, painting of metal roofs, painting frame buildings inside and outside, etc., and for the renewal of plumbing in the almshouse .....	5,000.00
For granolithic floors in male workhouse, 1,475 square yards .....	2,655.00
For construction of general storehouse and cooler .....	4,000.00
For burial of the pauper dead of the District .....	2,000.00
For salaries:	
One intendant .....	1,600.00
One visiting physician .....	1,080.00
One resident physician .....	480.00
One principal overseer .....	1,200.00
One record clerk .....	900.00
One storekeeper and property clerk .....	800.00
One matron .....	600.00
Eight overseers at \$600 each .....	4,800.00
Eight watchmen at \$365 each .....	2,920.00
One engineer .....	600.00
One first assistant engineer .....	400.00
One second assistant engineer .....	300.00
One night watchman .....	547.50
One blacksmith .....	350.00
One tailor .....	300.00
Two female keepers at workhouse at \$300 each .....	600.00
One hostler and driver .....	240.00
Four cooks at \$120 each .....	480.00
Two cooks at \$60 each .....	120.00
One baker .....	420.00
One trained nurse .....	420.00
Five nurses at \$180 each .....	900.00
Total .....	98,212.50

Very respectfully,

WALTER H. STOUTENBURGH,  
Intendant, Washington Asylum.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

### 13.

## THE REFORM SCHOOL OF THE DISTRICT OF COLUMBIA.

### REPORT OF THE BOARD OF TRUSTEES.

WASHINGTON, D. C., *October 1, 1892.*

GENTLEMEN: I have the honor, by direction of the board of trustees, to transmit herewith the twenty-third annual report of the board of trustees of the Reform School of the District of Columbia.

The school was established by Congress twenty-three years ago, and from that time to the close of the last fiscal year there have been received, educated, and cared for, 1,717 boys. At the beginning of the present fiscal year there were 206 boys in the school, a larger number than was ever before received. During the past fiscal year there were 116 boys sent to the school. By the supreme court of the District of Columbia, 19; by the police court of the District of Columbia, 71; by the United States courts, under authority of the Attorney-General, 11; committed by the president of the board of trustees, 15.

Received on first commitment, 96; received on second commitment, 20.

The maximum number in the school during the fiscal year was 208; the minimum number, 181; the average number, 201. This average is larger than ever before attained in the school.

The number of boys discharged during the year is as follows: By the board of trustees under the rules of the school, 104; by change of sentence of court, 3; absent without leave, 6; died, 1.

The number remaining in the school at the close of the fiscal year was 208. The average time served by the boys who were discharged during the year was two years and one month.

#### Causes of commitment during the year:

Incorrigibility .....	25
Larceny .....	27
Vagrancy .....	41
Assault .....	6
Housebreaking .....	4
Violation of United States mails .....	1
Robbing United States mails .....	3
Passing counterfeit money .....	2
Malicious mischief .....	2
Throwing missiles .....	2
Robbery .....	2
Introducing and retailing spirituous liquors .....	1
Total .....	116

#### Religious training of boys prior to commitment:

Baptist .....	49
Catholic .....	21
Episcopalian .....	2
Methodist .....	39
Presbyterian .....	1
Hebrew .....	1
No early religious training .....	3
Total .....	116

## Parental relations of boys received during the year:

Having both parents living .....	45
Having lost father by death .....	30
Having lost mother by death .....	12
Having lost both parents by death .....	20
Having parents living in separation .....	10
Having stepfathers .....	6
Having stepmothers .....	4

## Educational grade when received:

Did not know alphabet .....	20
Knew alphabet only .....	5
Could spell in one syllable .....	10
Could read primary lessons .....	34
Could read tolerably well .....	37
Could read well .....	10

Total ..... 116

Could not write .....	46
Could write name only .....	37
Could write tolerably well .....	28
Could write well .....	5

Total ..... 116

For further statistics I refer you to the report of the superintendent, herewith submitted, to which attention is respectfully invited, as showing the operations of the school and giving in detail the statistics referred to.

Since the organization of the school to the close of the last fiscal year, but 11 deaths have occurred, being less than seven-tenths of 1 per cent.

During the fiscal year 1 death occurred, but I regret to say that since the close of that year another death has occurred. In both cases every care and attention was given to the boys by the superintendent and the matron, his wife, by the other officers, and by the attending physician, who daily visited them during their illness. I submit herewith the report of Dr. Charles A. Wells, attending physician, and his recommendations will be carried out by the board.

On the 20th of July last, by direction of the board of trustees, I submitted an estimate of appropriations which were then thought necessary for the next fiscal year. The estimates for supplies were the same as submitted for the fiscal year previous, although there is a considerable increase in the number of inmates.

An addition of \$300 to the salary of the superintendent and \$100 to the salary of the assistant superintendent was asked for. As then stated in my communication to you, these officers are among the most poorly paid officers of like character in similar institutions throughout the United States. Our superintendent receives only \$1,500 per annum—less than a third-class clerk in one of the executive departments. The assistant superintendent receives but \$900 per annum, being the same as received by a copyist in one of said departments. They work from early morn until late at night, and not infrequently all day and all night. They average from 12 to 15 hours a day, with grave responsibilities, and the small increase asked is justly due them, and it is earnestly urged that it be recommended to Congress at its next session.

The school as now established is intended for not to exceed 150 boys, but it now averages over 200, and the school is crowded beyond the limits of health and proper discipline. Daily am I called upon by parents of



wayward boys to admit them to the school, but my invariable reply must be: "There is no more room." I have been obliged, also, to notify the judges of the police and criminal courts that the school was full, and no more boys could be received.

We therefore ask in these estimates for one additional family building, at a cost of \$20,000.

Five hundred dollars in addition was asked for pay of teachers. The sum of \$3,500 for this purpose was fixed some years ago. Since then the population of the school has largely increased, another building erected, and additional teachers had to be employed. To employ them we had to reduce the salaries of the other teachers, Congress failing to make the necessary appropriations. This was unjust to them, as the salaries they were then receiving were small enough. We have on several occasions urged upon Congress that their salaries be restored; and I again ask that this small addition be made to the appropriation for teachers to enable us to do so.

The other appropriations asked for are the same as those submitted for the last fiscal year, which were not provided for. Everything we ask is absolutely necessary for the health, convenience, and proper discipline and management of the school. Our estimates are modest, and it is hoped that they will be granted.

In my interview with Commissioner Douglass, in reference to the use of the proceeds of the labor of inmates which are now covered into the Treasury of the United States, one-half to the credit of the United States and the other half to the credit of the District of Columbia, when I asked that he favor a change in the law which would give the school the benefit of such labor, he was kind enough to say that he would favor such a change. I respectfully state that if this be done, there will be a greater incentive to a larger income to the school. We would raise larger crops by the expenditure of more money which we would have from this source, increase the workshops in the same manner, and thus be able to reduce our annual estimates to that extent. We trust you will favorably present this matter to Congress at its next session. If Congress will give us permission to use this money for such purposes as repairs, improvements, enlargement of the outer buildings, and for other purposes, as the board of trustees may deem proper and necessary, we may not have to call upon Congress for things we do now. The amount is not large, and would not be missed from the Treasury of the United States or the District of Columbia, but would be of great value to the school. As it is now, if we undertake to raise a greater revenue such revenue must be paid into the Treasury of the United States, and we must ask Congress for more money to do so; that is, we must ask Congress for an appropriation to make money to pay back. But by using the money in the manner proposed, we will be able to add to our income, not only without additional expense to the Government, by a decrease in our estimates, but enable us to employ more boys in useful occupations. This is most important to the school, and the trustees sincerely hope that you will make such recommendation to Congress. Should you do so, I would suggest that so much of the act approved February 25, 1885, entitled "An act making appropriations to provide for the expenses of the government of the District of Columbia for the fiscal year ending June 30, 1886," which requires that "all revenues derived from the labor of inmates (of the reform school) and from the products of the farm, shall be paid into the Treasury of the United States, to the credit of the United States and the District of Columbia in equal parts" be repealed, and that the

board of trustees be authorized to make use of such revenue for such purposes as they may deem best.

The estimates submitted to you on the 20th of July were as follows:

For salaries:

One superintendent .....	\$1, 800
One assistant superintendent .....	1, 000
Teachers and assistant teachers .....	4, 050
One matron of school .....	600
Three matrons of families, \$180 each .....	540
Three foremen of workshops .....	1, 980
One farmer .....	480
One engineer .....	396
One assistant engineer .....	300
One baker .....	420
One cook, one shoemaker, and one tailor, \$300 each .....	900
Two dining-room servants, one seamstress, and one chambermaid, \$144 each .....	576
One laundress .....	180
One florist .....	400
Watchmen, not exceeding six in number .....	1, 140
Secretary and treasurer of board of trustees .....	600

In all..... 15, 362

For support of inmates, including groceries, flour, feed, meats, dry goods, leather and shoes, gas, fuel, hardware, furniture, farm implements and seeds, harness and repairs to same, fertilizers, books, stationery, plumbing, painting and glazing, medicines, medical attendance, stock, fencing, repairs to buildings, improvement of roadways, and other necessary items, including compensation not exceeding \$1,000 for additional labor or services; and for transportation and other necessary expenses incident to securing suitable homes for discharged boys, not exceeding \$500 in all ..... 26, 000

For buildings and improvements:

One additional family building, of brick, including heating apparatus, with connections, water supply, etc .....	20, 000
For furnishing the same .....	1, 200
For fencing the grounds .....	500
For two brick water-closets, at \$1,000 each .....	2, 000
Grading and improvement of roadways and grounds .....	500

In all..... 24, 200

After these estimates were submitted, however, the demand for admissions to the school became greater than ever, by the parents of the boys and by the courts. Daily appeals were made, and the courts urged most strongly that some provision be made for the many wayward boys brought before them. In every instance the appeals, though most earnest and urgent, had to be refused. I had many interviews with the judges of the courts in person. I always had to reply that it was utterly impossible to take more boys, as we were then crowded beyond our capacity. The dormitories are so crowded that it is impossible to get another bed in them. The urgency became so great that the board of trustees had a number of meetings to consider what was best to be done. After much consultation and consideration they deemed it best to lay the whole matter before you and the Attorney-General, and ask for further appropriations. On the 26th of September the following supplemental estimates were submitted:

Two family buildings .....	\$30, 000
One chapel .....	12, 000
Additional workshop .....	4, 000
Additional dining room and kitchen .....	12, 000
Total .....	58, 000



In submitting these estimates, as directed by the board of trustees, I stated in the communications of that date to you and to the honorable Attorney-General that they were absolutely necessary to afford further accommodations at the school, to supply the great and pressing demand.

In addition to what was brought personally to the attention of the board, I have received letters from Judge Kimball of the police court, the superintendent of the workhouse, the warden of the jail, and from the clerk of the police court. Copies of these letters are herewith appended, marked Exhibits A, B, C, and D.

The superintendent of the workhouse reports that on the date of writing his letter there were 21 boys under 16 years of age in that institution on account of there being no room in the Reform School; and the warden of the jail reports that at that time there were 23 boys in jail for want of accommodations in the Reform School. The clerk of the police court states that during the past fiscal year there were at least 100 boys discharged or given nominal fines by the court, and turned loose upon the community for the same reason. This makes about 150 boys now at large, in the jail, or in the workhouse, where they ought not to be, because we can not receive and provide for them.

No worse use can be made of a boy than to send him to jail or the workhouse; associating, as he must, with the most depraved and hardened class of criminals, he soon learns their ways and comes out ready for any crime, and becomes an expert criminal from the training he receives from the inmates of those institutions, becoming a burden upon society, and, as a rule, finding his way to the penitentiary. Truly, if only a matter of dollars and cents, it would be more economical to make provision for him in our school, where under proper training and discipline and humane treatment he will be led away from former habits, and grow up a credit to himself, his friends and parents, and an advantage to the community in which he lives.

Another very important view of the matter is this: Owing to the always crowded condition of the school and the constant demands made by the parents of the boys and the courts for admission, the time of the boys already therein is made shorter to make room for others. This is a great disadvantage, but one that can not well be avoided. The boys should be retained at the school until the trustees are entirely satisfied that they are fitted by age, reformation, and education to go into the world with sufficient experience to avoid their past evil companions and mistakes. It sometimes occurs that owing to the short time we are able to keep the boys they drift back into their old habits, and the good work done for them at the school is undone.

The present buildings at the school were erected to contain 150 boys. We now have more than 200, 50 more than we really should have. As said before, the dormitories are crowded beyond the limits of health, safety, and good order. Some time since we had a severe visitation of typhoid fever, from which one boy died. The disease still lingers, caused, as our physician says, by the overcrowded condition of our dormitories, and he strongly advises and urges that no more boys be received in the school until the number now there shall be materially reduced, and urges that never again they permit the dormitories to be in the overcrowded condition they are now in. He reports that we will always be liable to attacks of a like character just as long as we permit this condition of affairs. Contrary to the rules of the school, the laws of hygiene, and morals, in many instances two boys have been required to occupy the same small single bed. It is unnecessary for me to say



one word as to the great impropriety of this evil. It is, therefore, easy to see that accommodations are needed for 200 more boys, now on the community, in the jail, or workhouse, or overcrowding our dormitories, and if these buildings are given to us they will be filled almost as soon as completed. The serious alternative is presented: Shall these boys be sent to the Reform School, educated, cared for, taught useful occupations, and made good citizens, or permitted to fill the streets and crowd the jail and workhouse? This is a very serious question and must now be met. As before said, daily am I, as president of the board, obliged to refuse admittance to the school to parents of wayward boys; and in many instances boys whose parents have come to me have been sent to the jail or workhouse because our school could not receive them. The expense of keeping them in these places is almost as great as keeping them in the school.

The District of Columbia is rapidly increasing in population; and crime and wayward boys are keeping pace with its growth. When our buildings were erected many years ago they sufficed for the then population of the District of Columbia; but now the population of the District has more than doubled, and we simply ask that the accommodations of our school be doubled to meet the requirements of society.

It may be said that the sum asked is large. It may look large; but measured by the number of boys who may be saved from a life of crime and the amount of money that would be saved in their future prosecution if not sent to school, the amount is small. It is far better to reform a boy and make him a good citizen at any cost than to permit him to be turned out a criminal and punish and support him, perhaps, for life.

With an increased number of inmates an additional workshop must be provided. Those we have now, like our dormitories, are overcrowded. For this building \$4,000 is asked.

Our dining room is also overcrowded with boys, certainly beyond both health and convenience, and if the additional family buildings are provided, the dining room and kitchen must be enlarged, and for this purpose \$12,000 is asked.

One of the most, if not the most, important part of our work is the Christian influence exercised over our boys. To this end we must have ample chapel accommodations, and there has been asked therefor an appropriation of \$12,000. I desire to say, however, that if the chapel is allowed we can do without the dining room, as the room now occupied as a chapel can, at a small expense, be converted into a dining room; but the kitchen we must have enlarged in any event, and for this purpose an appropriation of \$2,000 is necessary. We must have either the additional dining room or the chapel.

It is earnestly hoped that all our estimates will be submitted by you to Congress with your earnest recommendation, and that Congress will see the great necessity for them and make the necessary appropriations.

When typhoid fever broke out in the school, fearing (owing to the drought that prevailed in this section of the country) that the water at the school might in some way be affected, I had it analyzed by the chemist of the District, who reported it pure and healthy. His report is herewith appended, marked Exhibit F.

On the 23d of November last this portion of the country was visited by a terrible cyclone, which swept over the city, doing considerable damage, and unfortunately struck our school, demolishing the boiler house and damaging some of the other buildings to a considerable extent. Having no means under our control for the repair of the build-

ings, application was made to the Commissioners of the District of Columbia, who very kindly placed at our disposal a sufficient sum to repair the damage; they having an appropriation known as the "emergency fund." The amount required for this purpose was about \$2,000. The Board of Trustees are under many obligations to Mr. Thomas B. Entwisle, building inspector of the District of Columbia, for his kind and gratuitous services in preparing the plans and superintending the repairs of the buildings.

The Board of Trustees being desirous of ascertaining the comparative cost of the several reformatory institutions throughout the United States, I corresponded with the superintendents of a number of such institutions and prepared a comparative table of 47 institutions, which is herewith appended, marked Exhibit E. As said, the object of this table is to show the comparative cost of maintaining the various institutions in the several States. The statement is comprehensive, and I trust will be found instructive and interesting. As shown by it the average number of inmates in these 47 institutions during the year was 17,357. The aggregate of expenditures was \$3,352,980.53, divided as follows: Salaries, \$934,272.60; food, \$896,845.28; clothing, \$252,135.02; fuel and lights, \$243,940.71; other items of maintenance, \$905,832.17. The average cost pro rata per annum was \$193.17. The lowest was at the House of Reformation for Colored Boys, at Cheltenham, Md., which was \$87.09; the highest was at the reform school at Booneville, Mo., \$358.41.

One institution, the Catholic Protectory at Westchester, N. Y., has over 2,000 inmates; two others between 1,000 and 2,000; the reformatory at Elmira and the institutions at Deer Island, Mass., between 500 and 1,000; the other institutions containing 500 or less inmates.

The salaries of superintendents range from \$800 to \$5,000 per annum. The largest salary list is at the Massachusetts Reformatory, being \$60,007.43; but at this institution I am informed the officers maintain themselves.

The pro-rata expense of our school was \$204.90. Allowing us credit for the amount paid into the Treasury, derived from the labor of inmates, our pro rata is reduced to \$191.18. This is less by \$1.98 than the general average, that average being \$193.17 per annum.

In point of expenditure, without this credit, our school stands No. 16; but allowing us credit for the amount paid into the Treasury, we will stand twenty-second. It will be borne in mind that a larger number of inmates can be supported at a less ratio of expense than a smaller number. In population our school stands No. 32. Besides, some of the institutions mentioned in the table are under the control of the Catholic Church, and their teachers and officers are Sisters of Charity and Christian Brothers, to whom no salaries are paid. Other institutions are for girls only, where the expense is not so high. If we had a larger number of inmates, of course the aggregate expense would be somewhat larger, but the pro rata cost would be reduced.

The annual salaries paid by our school amount to \$12,771.67. The cost of food, including groceries, is \$10,006.75. This item includes everything purchasable at a grocery store, such as brooms, soap, oils, and many other miscellaneous items. The cost of clothing was \$646.24; fuel and lights, \$3,193.24; other items of maintenance, \$13,925.15; the gross expenditures for the year, \$40,512.05.

As said, the amount paid for food was \$10,006.75, thus costing the Government for provisions but 4.61 cents per meal for each inmate, out of which the officers are also provided. Counting the officers who



are thus provided, the cost would be but 3.88 cents per meal for officers and boys. I respectfully suggest that this shows that no extravagance can be charged against us. While the cost is so small, all at the school receive three meals per day, full, ample, and sufficient; and, while plain, the food is of good quality and well cooked. Special attention is always given by the committee on inspection, in making their semi-monthly examinations, to the storerooms, and everything therein is thoroughly and carefully examined and no unwholesome or improper food is allowed to be served out.

I have visited many similar institutions throughout the United States, but in none of them have I found the inmates better fed, clothed, and cared for than in our school.

The aggregate cost may to many seem large, but money spent for preventing crime and reforming the criminal is in small proportion to what it would cost to maintain the same population if its criminal tendencies were not checked. From an economical standpoint alone money so spent is a profit to the State. As has been well said by another:

Every State that makes her criminals prisoners is unmindful of her duty if she neglects to employ the best means for their reformation.

The same writer says:

Reformatory institutions are right; and while they may be improved, they will never be displaced. They are doing a good work, which is steadily growing in the appreciation of thoughtful people and strengthening those concerned in their administration in the demonstration that their efforts are in the right direction and their results valuable.

The amount, \$193.78 pro-rata cost per annum, is not large for maintaining and educating these delinquents and employing means for their reformation. Do not the results so far justify much larger expenditure in this direction?

Some additional legislation, it is thought by the Board, is necessary for the proper management and discipline of the school. On several occasions a bill has been introduced in Congress giving the trustees authority to discharge boys during their minority and return them to the school when it is shown that they have not conducted themselves properly or have not suitable homes or situations. Attention is again invited to this, and as a bill for this purpose was introduced at the last session of Congress and referred to the Committee on the District of Columbia, where it is now pending, we respectfully ask that you invite attention to it and urge favorable action.

On May 18, 1891, the legislature of the State of New York passed an act in the following words:

1. Whenever it shall appear to the board of managers of the State Industrial School that any of the delinquents therein confined have been guilty of attempting willfully to set fire to any building belonging to the institution or any combustible matter for the purpose of setting fire to any such building, or that any delinquent shall have been guilty of openly resisting the lawful authority of the officers of the institution, or of attempting by threats or otherwise to excite others to do so, or shall by gross or habitual misconduct exert a dangerous and pernicious influence over the other delinquents, it shall be lawful for them to submit a written statement of the facts in any such case to a judge of the supreme court, or to the county judge of the county of Monroe, and thereupon apply to him for an order authorizing the temporary confinement of such delinquent for correction in the Monroe County Penitentiary, or in the New York State Reformatory at Elmira.

2. It shall be the duty of the judge forthwith to summarily inquire into the facts of the case, and if it shall appear to him that the statement is substantially true and that the case is one in which the ends desired to be accomplished by the institution will be best promoted by it, he shall thereupon make an order authorizing the confinement of the delinquent in the said penitentiary, or in the New York State Reformatory at Elmira, for a limited period, to be expressed in the order, and



the superintendent or keeper of the said penitentiary or New York State Reformatory at Elmira is hereby authorized and required to receive such delinquent and retain him during the period expressed in such order, unless the board of managers shall previously direct him to be returned to the said State Industrial School: *Provided, however,* That no such delinquent who is under sixteen years of age shall be committed to the New York State Reformatory at Elmira.

Such legislation would be of great advantage to our school; and the trustees will draft and submit to Congress at its next session a bill similar in purport. It sometimes happens that boys are committed to our school who should not have been committed there; and it also sometimes occurs that boys in the school, on account of their previous vicious habits and depraved character, can not be influenced by kindness and proper discipline. Such boys can not be reformed; and consequently the Reform School is no place for them, and they to a certain extent demoralize the other boys and cause much trouble to the officers. To meet this difficulty in the reformatories of the State of New York the act referred to was passed, and, I am informed, works well and exercises a most wholesome influence over inmates who are inclined to be insubordinate or give trouble. I invite your special attention to this, and trust that you will find it proper to recommend to Congress the enactment of the bill which will be introduced during the first days of next session.

Owing to the drought our farm has not yielded as bountifully as during the previous fiscal year, but it has done moderately well, and the crops we have gathered will, with care, it is thought, suffice for the needs of the school.

I submit herewith the report of the treasurer of the school, from which it appears that there was appropriated for the past fiscal year the following:

Salaries .....	\$14,252.00
Support .....	26,000.00
Boiler house .....	2,400.00
New boiler .....	1,500.00
Steam heating .....	1,500.00
Department of Justice, support .....	2,117.59
Total .....	47,769.59

The treasurer has disbursed the following:

Salaries and support .....	\$42,344.77
Boiler house .....	2,397.86
New boiler .....	1,500.00
Steam heating "A" family building .....	1,500.00
Total .....	47,742.63
Leaving an unexpended balance of .....	26.96

#### DISBURSEMENTS.

Pay roll .....	\$14,205.08
Groceries .....	5,134.85
Flour and feed .....	3,425.54
Fresh meat, fish, etc .....	2,156.51
Dry goods, clothing, hats, etc .....	2,901.92
Leather and shoes .....	836.66
Gas and fuel .....	3,743.85
Hardware, tableware, and kitchen ware .....	510.84
Seeds, fertilizers, harness, tools, wagons and repairs to same, blacksmithing, etc .....	1,926.71
Books, stationery, printing, and school supplies .....	325.14
Medicines and medical attendance .....	821.39
Sundry incidental expenses .....	1,259.31

## 236 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Furniture, repairs to carpets, etc.....	\$574. 06
Repairs to buildings, improvements, etc.....	2, 230. 04
Live stock.....	395. 00
Compensation account.....	897. 37
Completing boiler house.....	2, 397. 86
New boiler.....	1, 500. 00
Steam heating "A" family building.....	1, 500. 00
Total.....	47, 742. 63

The treasurer reports having received from the superintendent during the same period the sum of \$3,448.90, which he covered into the Treasury, one-half to the credit of the United States and the other half to the credit of the District of Columbia, as required by law.

It is with pleasure that the trustees again report that the school, with the exception of its overcrowded condition, and the disease incident thereto, was never in a better or more prosperous condition. The officers apparently vie with each other in bringing about this result. The school was never better officered than at present—all faithful and willing, discharging their duties, which are most trying, grave and responsible, in a manner most satisfactory to the trustees and creditable to themselves; kindly and humanely winning the confidence, affection, and respect of the boys under their charge.

To them all is due great credit for the high state of efficiency now existing at the school. But few changes have been made in the officers, and only such as the Board of Trustees deemed best for its interests. It is always the aim of the Board to get the best officers that can be obtained for the limited salaries allowed by Congress. Changes in such officers are always detrimental to the interests of the school, and when a good officer is obtained it is always the desire of the trustees to retain him as long as possible. Some of the officers have been in the school for many years and have earned the respect and confidence of the trustees by their faithfulness and diligence.

At Mettray, near Tours, Department of Indre et Loire, France, in 1839, the celebrated world-wide known Mettray Agricultural Colony was established by that Government. When this Mettray colony or reformatory was established it was the first step taken in the civilized world for the reformation of the juvenile delinquent. The subject of such reformation had been in the minds of thinking people for years previous, which culminated and resulted in the Government of France establishing this institution more than fifty years ago. Since then, to the present time, it has maintained the reputation of being the most perfect, complete, and well-governed institution of like character in the world.

When a few philanthropic gentlemen of this District, twenty-five years ago, met to consider what should be done for the juvenile delinquent of the District of Columbia, they corresponded at great length with the officers of the institution at Mettray and gathered all the information in relation to that institution. That it may be seen how closely our school has followed the Mettray school and adopted its system, by-laws, and regulations, I have appended to this report copies of the by-laws of the Mettray colony, marked Exhibit G, and copies of our by-laws, marked Exhibit H, and copies of the act of Congress relating to our school, marked Exhibit I.

It will be seen from article 1 of the by-laws of the Mettray reformatory that its object is to collect, support, and educate therein juvenile delinquents sentenced under the laws of France and confided to them; to give said delinquents a moral and religious education; to teach them



trades and to accustom them to agricultural employments; to exercise a care over them after they leave the school and find homes for them; and to aid them with their official patronage. Compare this article with Chapter 1 of our by-laws and the act of Congress approved May 3, 1876, and one may see how closely they resemble each other.

Again, by examining the by-laws of the Mettray colony, under the head of "internal regulations," as to the admission of inmates, title 1, article 1, it will be seen how closely it also resembles chapter 1 of our by-laws and the act of Congress referred to.

The rules of our school, although not specifically laid down in the by-laws, follow closely article 4 of the internal regulations of the Mettray colony. As far as possible, in the employment of officers and employes in our school, the requirements of article 6 of the Mettray school are carried out.

When our school was first established, it was the intention of the trustees to divide it into families of not more than 50 boys each. In this respect we intended to adhere to article 7, title 2, of the Mettray by-laws, under the heading of "internal rules, measures of order and security, etc." It will be seen by this article that the colony is divided into families living in separate houses, each family consisting of 40 inmates, divided into two sections of 20 each. The system of dividing up the school into small families is highly commended by all workers in reformatory institutions; and all agree that the smaller the family the better the order, discipline, and results. As said, this was the intention and desire of the promoters of our school; but owing to the limited accommodations afforded us, our families are necessarily much larger; and for this reason, in addition to the necessity of providing for the many wayward boys in the District of Columbia, Congress is urged to make liberal appropriations.

An examination and comparison of the by-laws of this institution and ours will, to persons interested in the work, be found most interesting, and special attention is invited thereto.

I am indebted to Monsieur Cluge, the director of that institution, for the copies of the revised by-laws of the Mettray colony. In July last I wrote him, asking for information in reference thereto. He kindly sent me the by-laws, with a lengthy communication, a copy of which is herewith appended, marked Exhibit K. From this communication it will be seen that since the founding of the Mettray colony it has received 6,607 juveniles committed by law, and 2,000 others committed by their parents. Under the laws of Congress relating to our school, delinquents can be sent through the courts for violations of law and by the president of the board of trustees for incorrigibility. At the date of Monsieur Cluge's letter there were 600 inmates in that institution—550 committed for violations of law and 50 by their parents—about the same proportion as in our school.

These inmates are allowed deductions of time for good conduct, as Monsieur Cluge states, the same as in our school. Monsieur Cluge also states that they follow the inmates after their discharge, an agent visiting them frequently, so that they are continually informed as to their conduct. They also have the right, under the law, to recall to the colony such as in their opinion have no suitable homes or employment, or are disposed not to do well. We have frequently urged upon Congress, as will be seen in a number of our previous reports, and as is mentioned in this report elsewhere, the necessity of giving us the power of returning to the school boys who have been to the school, but who are liable to go astray again. When our school shall have in-



creased in population, as it must, and Congress through its liberality enlarges its accommodations, it will be very desirable to adopt the Mettray plan of having an agent of the school to visit at stated terms discharged boys, and see how they have conducted themselves, whether they have suitable homes and proper employment; and when he finds they have not, or for any reason, they may be returned to the school during their minority. The importance of legislation upon this subject by Congress is obvious.

We have written at some length in regard to the Mettray colony because, as said, our school is built upon its foundation; and if Congress will give us the means of carrying out the original intentions of the board of trustees, and will allow us to more closely follow our model, our school, although now standing in the front rank of similar institutions, will assume the position of standing, for usefulness, second to none throughout the world, and will become a model for others to build upon.

Very respectfully,

A. J. FALLS,

*President of the Board of Trustees.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

#### REPORT OF THE SUPERINTENDENT.

#### REFORM SCHOOL OF DISTRICT OF COLUMBIA,

*October 1, 1892.*

GENTLEMEN: I have the honor to submit herewith my annual report for the year ending June 30, 1892:

Total number of boys received since opening .....	1,717
Total number of deaths since opening .....	11
Rate of mortality three-fourths of 1 per cent.	
Average age of boys received since opening .....	years.. 13.1
Boys in institution June 30, 1891 .....	206
Minimum time for boys remaining under ordinary rules .....	years.. 2
Possible reduction of this time for perfect conduct .....	months.. 5
Received during the year:	
Committed by supreme court .....	19
Committed by police courts .....	71
Committed by United States courts .....	11
Committed by president of the board .....	15
Total .....	116
Total population during the year .....	322
Received on first commitment .....	96
Received on second commitment .....	20
Total .....	116
Average age of boys received during the year .....	years 13.9
Maximum number during the year .....	214
Minimum number during the year .....	181
Average number during the year .....	201
Boys discharged during the year:	
By order of the board of trustees .....	104
By change of sentence of the court .....	3
By escape and still absent .....	6
By death .....	1
Total .....	114

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 239

Number remaining June 30, 1892.....	208
Average time served by boys discharged during the year.....years..	2.1

## Causes of commitment during the year:

Incorrigibility.....	25
Larceny.....	27
Vagrancy.....	41
Assault.....	6
Housebreaking.....	4
Violation of United States mails.....	1
Robbing United States mails.....	3
Passing counterfeit money.....	2
Malicious mischief.....	2
Throwing missiles.....	2
Robbery.....	2
Introducing and retailing spiritous liquors.....	1
<b>Total.....</b>	<b>116</b>

## Religious training of boys prior to commitment:

Baptist.....	49
Catholic.....	21
Episcopalian.....	2
Methodist.....	39
Presbyterian.....	1
Hebrew.....	1
No early religious training.....	3
<b>Total.....</b>	<b>116</b>

## Parental relations of boys received during the year:

Having both parents living.....	45
Having lost father by death.....	30
Having lost mother by death.....	12
Having lost both parents by death.....	20
Having parents living in separation.....	10
Having stepfather.....	6
Having stepmother.....	4

## Educational grade when received:

Did not know alphabet.....	20
Knew alphabet only.....	5
Could spell in one syllable.....	10
Could read primary lessons.....	34
Could read tolerably well.....	37
Could read well.....	10

**Total..... 116**

Could not write.....	46
Could write name only.....	37
Could write tolerably well.....	28
Could write well.....	5

**Total..... 116**

## FINANCIAL STATEMENT.

The superintendent has received from various sources during the year, and turned the same over monthly to Samuel W. Curriden, treasurer of the school, who has covered the same into the United States Treasury, for the credit of the United States and the District of Columbia jointly, as follows, viz:

From paper-box industry.....	\$2, 100. 00
From sales of surplus farm products.....	437. 17
From greenhouses.....	826. 72
From miscellaneous sources.....	84. 81
<b>Total.....</b>	<b>3, 448. 70</b>

In all my previous official reports concerning the work and condition of the school, much care has been exercised in their preparation to avoid an overestimate of what had really been accomplished. You will pardon me, therefore, in this one instance, if I chance to speak with more assurance and in a somewhat louder tone, making broader claims than ever before as to the extent and character of this work, not only in the recent past, but throughout a succession of half a score of busy years.

The early history of the school, in point of time, dates back almost a quarter of a century. There is much connected with its initial life that could be recalled with interest and profit, while, through all these intervening years, it has been steadily growing in usefulness and gaining strength in every way. There was a time when its younger efforts were but a brave struggle for existence, and its then uncertain future was clouded with doubts and fears. These were times that must have tried the patience if not the faith and courage of its board of management; but by faithful service and unremitting energy on the part of its early founders, and their no less worthy successors, these dangers have all been safely passed and its agencies for good permanently established.

Your just reward, if that be a question at issue, will never materialize in a financial point of view, as no provision has ever been made for that; but it is none the less secure, in a higher and more ennobling sense, as the evidence, clear and well defined, all centers in the great work your generous labor has accomplished, and in the relatively high position to which the institution has been advanced, as compared with others of its class, whether under local, national, or international control.

As a means for reformation, and as a medium for the moral and educational training of thoughtless and misguided youth, the school has a noble mission. There is not a single year, dating from its official birth, that does not mark an important epoch in the life of many a truant boy. From among this aggregate, and as certified beyond a doubt, scores have already grown to honorable manhood, who never cease to speak in grateful recollection of those months—or years it may have been to some, of “*durance vile*,” and of the merited restraints their timely discipline imposed; not forgetful, however, of the patient but compelling kindness which brought to them, in time, a lasting benefit, in that it taught them the first practical lesson they had ever learned in the art of transforming a wild, incorrigible, and willfully disobedient boy into a considerate, gentle-mannered, manly man.

The present very satisfactory conditions are in no sense the result of either accident or chance. Nor have they been secured by the aid of visionary theories, numberless in these later days as the shifting sands and relatively of even less intrinsic value. All the labor involved and the consequent good accomplished must be accepted as evidence that it has dealt rather with living, practical issues—relying upon agencies armed and equipped with an educated common sense—tact and energy joining hands with a will—strong in the consciousness of a worthy purpose.

The daily routine of this work has been divided into many parts, each representing a special and important trust, and all uniting to effect the possible reformation of every incorrigible inmate. To eliminate the bad in each and permanently install the good has been an ever-present motive, aiming always to divert and change the bent of evil habits into lines of better thought and action. Specific rules and formulated methods are eminently essential; but they should be few in number, wisely framed, and never arbitrarily or needlessly enforced,



always keeping in mind the still higher law of human sympathy, wherein is the "soft answer" that turneth away wrath, and the wise judgment that "seasons justice with mercy."

The earliest years of childhood are but types of those that are to follow. The boy is father to the man. He may be all noise and bluster; but it were well to heed his childish utterances. "When I grow up to be a man." With what a halo he crowns that vision of the coming years. Hear him patiently, "I am going to be a carpenter and build houses." Don't try to stop his suggestive prattle. "I will learn to be a sailor and have a ship of my own." Or perhaps his wider range of fancy may open to him a career in the higher paths of literature or art. Still listen to his prophetic visions; and if it be at all possible aid and assist him to execute, in time, his childish purposes.

Parents are the natural guardians of their own children, but often prove themselves unworthy of such a trust. So, also, the child will at times reject all the comforts of a model home and become rebellious under the kindest parental treatment. In either dilemma results are the same, and in extreme cases the burden of discipline is rightly enough transferred to a new and higher authority. Some two hundred or more of these otherwise homeless boys are now inmates of the school. They are not here of their own volition, but as subjects and wards of the national and District governments. Having accepted the legal sponsorship and assumed control of their moral and physical development during minority, this higher authority should not fail to accept also a full measure of the responsibility involved.

Much has been accomplished; much yet remains to be done. Prompt and timely appropriations have been granted and all judiciously expended, producing very satisfactory results, but limited always to a minimum for want of necessary means to meet other than the most pressing demands. More generous financial aid must have given proportionate results and thus have largely increased our sphere of usefulness. It seems plainly evident that the true scope and character of this work has never been accepted at its full standard of value, possibly for want of sympathetic interest, but more certainly because it has not been clearly understood either in its immediate or far-reaching influence upon the public welfare. Still other causes may account in part for this apparent apathy and want of information. The present tendencies are to enlarge rather than circumscribe the opportunities that offer bribes to every form of youthful dissipation. Even parental license thoughtlessly transfers to early childhood many questionable privileges that must lead in time to open disregard of all authority.

It is safe to repeat much yet remains to be done. The school, with all its years of trial, is but an infant still, struggling toward a higher plane of duty and a wider field of labor. The great work it has in hand is only well begun, and the vital question now would seem to be how best can it prepare to meet and serve the largely increased demands that have been made upon it within the year. The answer is apparent. Adequate appropriations must be provided to cover the necessarily increased expenditures; otherwise your hands are tied as a board of management, the good work retarded, and there remains but little hope of further progress. Thus the issue is clearly drawn, and the burden of responsibility must rest with the higher authorities, whose province it is to give or to withhold.

This being the only institution of its kind under national control, and located within sight of the national Capitol, it is respectfully submitted that it should receive additional recognition with reference to advanc-

ing its educational facilities, both in letters and the mechanical arts. It would be the exercise of a wise economy on the part of Congress to establish, under specific limitations and subject to the present management, a special department wherein boys of mature age, including those committed by authority of the United States courts, could be educated and thoroughly trained in some practical mechanical industry. We have now a number of these boys in every way worthy and eager to learn, together with many others equally deserving, who must either receive such instruction here or lose their only opportunity. This new department should be provided with ample means to secure a thorough equipment, and none but competent teachers should be employed. It should be prepared to give practical instruction in the higher branches of mathematics, mechanical drawing, civil engineering, telegraphy, stenography, wood carving, painting, plumbing, or in other useful and remunerative occupations now so generally taught and practically applied in the higher-grade public schools, and in many others similar to our own under State or municipal control.

No important changes have been made during the year in any department of the school work. Our present arrangement, by division into three separate families, became necessary when our new building was first occupied. The population was then but little over 150 boys, but it has been steadily growing ever since, with a present aggregate of over 200 boys. No provision has been made for this large percentage of increase, which from necessity has been temporarily cared for by an equitable distribution among the several families. The result is a present overcrowded condition in two of our buildings, especially in the sleeping apartments, making it unsafe and unjustly hazardous to the general health should any virulent contagious disease become epidemic. Our dormitories are all of good size and well ventilated, but their capacity is already overtaxed, and to an extent that must exclude under the law any further additions until relief of some kind is secured. The highest authorities in educational and reformatory work unite with the most eminent physicians in protesting against the practice of overcrowding in our schools and hospitals, under the too common pretense that it is for temporary purposes only and to meet some pressing emergency.

The conclusion is forced when these conditions are applied to either our present or future needs. The demand is for more room. One new building is required at once, and there should be still another provided without delay, both of similar design and of equal capacity with those now in use. This will also necessitate corresponding additions to our kitchen and boys' dining room, neither of which, within their present limits, would serve to accommodate any further increase in our population. But it will not do to stop even midway in our efforts if these broader expectations and larger results are to be realized. There must be an advance along the entire line. We need yet another building—a school chapel, or boys' assembling hall—call it by what name we may. There can be no question as to its practical utility. It should be a model building of its kind, of ample dimensions, and altogether an attractive and substantial structure, and so placed that in our present group of buildings it would become a central figure, not simply by reason of its location, but rather because of the varied opportunities it would offer alike to all as an incentive to higher and better ways of living.

Regular school sessions have been held in each family school room during the fall and winter months. Each boy is required to spend a



portion of his time in school, and all are taught to read and write and recite the multiplication table readily. Recitations are made in written and mental arithmetic daily and the blackboard is freely used by the more advanced classes. A creditable knowledge of the elementary branches is required of every boy, in addition to a commendable record for good behavior, before he can receive his honorable discharge. This standard in educational advancement is the minimum required, but we discharge many boys capable of entering the higher grades in our District public schools. - In one family recitations are made in history, algebra, and geometry by a limited number, while others receive lessons in practical bookkeeping and elocution. The most encouraging part of our school work, however, centers in a given number of the older boys, who come to us by authority of the United States courts and often from far-distant States and Territories, and without educational knowledge beyond the alphabet, or perhaps a capacity to spell correctly words of a single syllable. They are not ignorant from any fault of their own and therefore more deserving on account of the rapid progress they make and for the interest taken in their books and studies. Some of these boys have been advanced during a single school term from a knowledge of the alphabet only to a position that would entitle them to honorable discharge under the rules.

Our text-books are substantially the same as those in use in the District public schools. Our teachers are also officers in charge of the several families, and are therefore, in addition to their work in the school sessions, continuously responsible for the care and discipline of their respective charges. Their duties are onerous and exacting, averaging from ten to fourteen hours daily, Sundays and holidays not excepted. For the amount of labor performed and the responsibility it imposes their remuneration is far below the average for similar services in our public schools. Permit me, in this connection, to ask your earnest efforts in securing the small advance in their salaries named in your estimates for the coming year.

When not occupied in the school sessions all are employed at some kind of manual labor during a portion of each working day, as we find no use for idle or lazy boys.

Neither do we find any want of opportunity for this kind of wholesome exercise; and as the evidences of thrift and industry are everywhere apparent, the safe conclusion is that these "golden hours" are seldom either lost or wasted. The farm still takes precedence as our favorite field of labor, and rightly enough claims the largest share of muscle, as the work is somewhat onerous at times, and noticeably increases in importance with each succeeding year. The present has been no exception to the rule, as our crops of every kind have been equal to the general average. The result of all this labor is returned to us in large measure, as it supplies our tables with every variety of wholesome fruits and vegetables in their season, throughout the year.

Our paper-box industry is steadily enlarging and improving, as shown by the very creditable exhibit made in the increase of its moneyed income. But this is not the most important part of its usefulness, as the practical knowledge it confers must prove a lasting benefit to a large number of our younger boys. The work is comparatively light and in many respects attractive, even to children of moderate ability, and yet often requiring both skill and experience to make them proficient in all its parts. It has the further advantage of being rated as a regular trade, and as such is rapidly assuming a business importance in every manufacturing center. It is now one of the promising industries in the opportunities it offers to the young workers of both sexes.



Having in all my former reports spoken so freely and fully concerning the large amount of unremunerative, but necessary domestic labor required in the conduct of the school, I will not even attempt to itemize or designate in detail the varied phases of this important work nor stop to enumerate the separate agencies by which it is secured. Enough to know that it has been well and faithfully performed, and that without its constant ministrations there could be neither health nor comfort—not even promised length of days—in any material part or portion of our school life. It is the first to commence, as it is the last to close, its round of daily service, and its days of service are bounded only by an aggregate of all the days within the year.

While much has been done to improve our roadways and grounds, many needed repairs have also been made to a number of the older buildings; but our most important work was the completion of a new steam-heating plant, in conformity with plans made and adopted several years ago. An appropriation of \$5,500 had been made by Congress for this purpose and in accordance with estimates furnished. Three thousand dollars of the gross amount was applied to the purchase of a new steel boiler of large capacity, and the extension, by all necessary appliances, of steam-heat to our "A" family building, located at a distance of little less than one thousand feet from the main plant. This work was all completed, to the satisfaction of your building committee, early in November last, and has been working admirably ever since. The new boiler is a duplicate of one previously in use, and their joint capacity is now estimated at 200 horse power. As a result our main and family buildings, workshops, and green houses are all comfortably heated during the coldest weather.

The contract for these improvements was awarded to Messrs. Thomas C. Basshor & Co., of Baltimore, and the work was completed for the amount named, approved by the inspector of buildings, and accepted by the board of trustees.

The new boiler house is a substantial brick structure, with a glass-covered extension northward, to meet the rising grade and give a direct entrance from the roadway upon that side. It was built by your authority, under the direction of the building committee; but was scarcely completed when, on the 23d of November last, at midday, it was struck by a heavy windstorm, resembling a funnel-shaped cyclone, and almost completely demolished. As the entire amount of the original appropriation had been expended, an appeal was made to the honorable the Commissioners of the District of Columbia, and by their prompt and favorable action the necessary means were provided from their emergency fund, and the building as originally designed was speedily rebuilt, under the general supervision of the inspector of buildings, Thomas B. Entwisle, esq. Serious damage to other buildings in line with the storm were also provided for by the same authorities, and the total cost to the District, as charged to their emergency fund, was but little short of \$1,800. The completion of these improvements has added much to the general comfort and convenience of our entire population and greatly enhanced the appearance of the school grounds in that immediate locality.

The general health of the school has been uniformly preserved throughout the year, and may be reported as above the average. Much care and attention has been given to the sanitary condition of the buildings and school grounds. A constant and judicious application of the best known disinfectants has been made under the direction and with the approval of our visiting physicians. No virulent disease has

at any time assumed an epidemic form; and but a single death has occurred during the fiscal year. Even this came to us as a sad visitation, the subject being a boy in middle youth, bright and full of promise. He had been with us many months, as a result of his having thoughtlessly deserted a comfortable home in a distant city and the kindest authority of parents, both of whom still live to mourn his loss. Everything possible was done, but without avail, to spare this young life, as the time was nearing for his honorable discharge, and having himself expressed a willingness to return to his home and start again for a new and better life.

No efforts have been spared to guard against the possible introduction of foreign or contagious diseases, of whatever kind. Our natural elevation must always favor an abundant supply of pure air, and our water supply is from deep springs or wells, walled and cemented as a protection against surface drainage. The buildings are all free from dampness, having concreted basement floors, with good means for ventilation in all their parts, and are kept, day by day, in a thoroughly clean condition. Dr. Charles A. Wells, as also his business associate, Dr. Richardson, makes official visits to the school when summoned, or oftener, as emergencies may require. Dr. Wells, as the senior physician, and having had long continued official connection with this responsible branch of the school work, continues to make his annual report to the board of trustees concerning its conditions and wants.

The legal holidays were all welcomed and all duly observed in the regular order of their coming. Starting with the opening of our fiscal year, "Fourth of July" was never more enthusiastically glorified by over 200 specimens of young America than it was on the occasion of our last annual celebration. Reference to our Daily Record leaves no doubt as to the perfect weather prevalent during the entire day. This made it possible for even the smallest boy to thoroughly expand his lungs by noisy exhibitions of his youthful patriotism in the open air. Opportunity for rational enjoyment was unrestricted; flags waved from every housetop; Hail Columbia and Yankee Doodle "cracked the voice of melody" in clarion sounds from drum and fife, while mimic soldiers marched and countermarched as though determined to complete the poet's stanza and practically "break the legs of time." The favorite game, in double nines, transformed our playgrounds for the time into a fitting arena for the development of youthful muscle, quite in keeping with a boy's ideal as to the best means of securing that important part of his education. Night came in due course of time, and with it the usual waste of powder. The result was a fine exhibition of fireworks from the open grounds in front of our main building, and, by reason of our elevated position, visible for miles in every direction. And thus the day closed, free from accident of every kind, with hearty cheers for the "red, white, and blue."

Thanksgiving Day, naturally enough, found us all in happy good humor, and, we may hope, abundantly thankful. There were good and sufficient reasons for all this, as general good health was prevalent within the circle of our large family and peace reigned throughout all our borders. By special order of our board of trustees there was provided a bountiful supply of everything required to make our tables attractive and satisfy the most exacting appetite. By common consent every attention was given to the large dining room in which the boys were assembled, and all joined to serve them with a round of well-cooked viands, hot and savory from the kitchen range. It will bear repeating, with perhaps a shade of doubt as to the exact quality of these votive



offerings, but the fact remains that there were many thankful hearts for all this happy holiday had brought them.

Our programme for honoring the happy Christmas time was full and complete, being a duplicate in every respect of many others memorable in the history of our school. On these pleasant occasions all voices are tuned and all hands educated to work in harmony. Nothing is ever omitted, that comes within the range of our limited means, to make the return of this favorite anniversary a season of joy and gladness to all. Preference is always given, however, to the younger boys, and to those who, seemingly, have never known or felt the kindly influence of a comfortable and happy home. There could be no grant of indulgence in the exchange of costly gifts and favors, but there was good will enough and charity withal, in many childish hearts to readily transform the simplest toy or box of nuts and bonbons into orient pearls or gems of rarest hue. But there was no need of this; they had all their full round of fun and frolic—jumping jacks and spinning tops—and all ate their candied sweets freed from churlish thoughts or murmur of complaint. Supplies of every kind throughout were ample, and there was no youthful Oliver Twist to present his brimstone-scented platter—ever ready and waiting—to ask for more. There was nothing to interrupt or mar the current of good feeling. Joy-bells gave merry greeting to the opening day, and their still joyous echoes closed its parting hours.

By reason of the prevalence of la grippe, and for the first time in many years, our annual entertainment, as given by the boys of the institution, was very reluctantly abandoned. The usual time for holding this now popular exhibition is in midwinter, following by a month or two the Christmas holidays. Many expressions of regret have come to us from visiting friends for this one omission, and it was quite a disappointment also to those directly concerned in the work of preparation. This will apply especially to the boys, who always enjoy for months previous the novelty and diversion attending the necessary study and frequent rehearsals required to insure reasonable success in each of their individual parts. We are hoping, however, for better fortune in the coming year; and at this writing the outlook is not unfavorable.

From its earliest organization, and by authority of the board of trustees, the school has been conducted upon the highest plane of moral and religious thought and action. To serve this end it has been the uniform custom throughout all these years to hold a service of this character, each Sabbath afternoon at 3 o'clock, in the large hall in the south wing of the main building. All officials connected with the school are expected to be present on such occasions. These services are in no sense sectarian or exclusive, and are never held in the special interest of any one branch or denomination of the Christian Church. They have been conducted, as they still are, alternately by ministers and others connected with different religious organizations, whether in the District of Columbia or in other localities. It should be matter of record that during all this time no provision has ever been made by Congress to remunerate in any substantial manner the many generous-hearted men and women who have thus from week to week voluntarily given their time and talents to serve the institution in this important part of its reformatory work. Permit me, therefore, to suggest that you make early application to Congress for a reasonable appropriation sufficient to cover the cost of an expenditure so just and proper.

The past has not been an exceptional year, as the same routine of religious duty has been faithfully adhered to, both as to time and



manner of holding each Sabbath-day exercise. All are still cordially invited to attend and join with us in these religious devotions. Many thanks to our good friends everywhere, and of every name, who have given us timely aid and helpful sympathy in this work for the Master.

The Rev. Father Russell, of Hyattsville, Md., continues to hold and conduct a religious visitation at the school in the morning of the fourth Sabbath of every month, in the special interest of the Catholic boys. These same boys also receive instructions in the tenets of their religious faith from their friends in the city, who visit the school every Sabbath evening for such purpose.

We are pleased to notice a continually increasing interest in our work, as clearly manifest in the larger number who have visited the institution during the year. We open wide our hospitable doors to these good friends, as, indeed, to all others moved by the same kindly spirit. We might even emphasize this already generous invitation in its application to the many worthy persons, men and women, who either are or have been efficient workers with us in the same vineyard and through many years of faithful service. We all need and should be swift to utilize the help that comes from an honest interchange of personal opinions, formulated and gathered along the busy highways of life, from the matured experiences that time alone can bring.

There is yet another evidence of interest and sympathy in our school work deserving of special mention, as it has brought to our boys, from time to time, a large amount of interesting and useful reading matter. Notable among these generous contributions is one received direct from the publishers, Messrs. Harper & Bros., of New York. It was a gift to the school library of many unbound copies of their leading periodicals, including the Monthly Magazine, Young People, and Weekly, all and sundry of which our boys never cease to enjoy and highly appreciate. Special and deserving contributions have also been made by many others, including those from Mr. Crosby S. Noyes and Mr. James E. Fitch, members of the board of trustees, of more than 150 copies of standard monthly magazines, together with a variety of miscellaneous papers and pamphlets. For these several gifts, and to those from whom they came, due acknowledgments are hereby made, with a modest suggestion to other friends, "Go thou and do likewise."

When in the course of human events it has become possible that our new and improved printing press, with every needed appendage, shall have come to us through the act and will of a generous and appreciative Congress—as it doubtless will in due time—we shall have much pleasure in exchanging our then possible Reform School Miscellany, Literary Telescope, or some other still nameless school periodical, with each and all of the following-named institutions, from which we have received so many like favors, and to which, in the persons of their official representatives, we again make our annual and very cordial acknowledgments, viz: House of Refuge, Cincinnati, Ohio; Reform School for Boys, Jamesburg, N. J.; State Reform School, Meriden, Conn.; House of Reformation, Deer Island, Mass.; Industrial School of Reform, Louisville, Ky.; Sockanossett School for Boys, Howard, R. I.; State Industrial, Kearney, Nebr.; Lyman School for Boys, Westboro, Mass.

No radical changes have been made in our working force during the year. It is always safe to rely upon experienced official help, and no change should ever be made except for cause or in the interest of the person employed. Our work, in all its separate departments, requires faithful and intelligent service, and this it must have, or anything

beyond partial success is impossible. It gives me great pleasure to be able to speak without reserve and in just commendation of our present corps of officers and employes. Many of them are deserving of special mention here, and notably among these our worthy and efficient assistant superintendent, Mr. I. D. Porter. His position is one of continuous activity, requiring much tact and patience, and, above all, integrity of purpose, with ability to do the right thing at the right time and in the right way. He has satisfactorily discharged his duties under these qualifications, and I commend him, with all others as at present employed, to your favorable notice and approving judgment.

In closing, gentlemen, members of the board of trustees, I trust your indulgence will excuse these somewhat lengthened pages. They are submitted, hoping that some word has been spoken, some thought suggested, that may aid you in your efforts to secure to the institution a still higher and broader field of usefulness. I thank you sincerely for your confidence and the favor that has kept me so long associated with you in this important work.

May there be fullness of grace and blessing for the coming year.

Respectfully submitted.

G. A. SHALLENBERGER,  
*Superintendent.*

The BOARD OF TRUSTEES OF THE REFORM SCHOOL  
OF THE DISTRICT OF COLUMBIA.

#### REPORT OF THE TREASURER.

THE REFORM SCHOOL OF THE DISTRICT OF COLUMBIA,  
*Washington, D. C., September 21, 1892.*

SIR: During the fiscal year ended June 30 last, the following sums have been received by me:

##### Receipts:

Appropriations for salaries .....	\$14,252.00
Appropriation for support .....	26,000.00
Appropriation for boiler house .....	2,400.00
Appropriation for new boiler .....	1,500.00
Appropriation for steam heating .....	1,500.00
Department of Justice, support .....	2,117.59
Total .....	47,769.59

##### Disbursements:

Salaries and support .....	\$42,344.77
Boiler house .....	2,397.86
New boiler .....	1,500.00
Steam heating "A" building .....	1,500.00
Total .....	47,742.63
Unexpended balance .....	26.96

I have also received from the superintendent during the year, and covered into the Treasury to the credit of the United States and the District of Columbia, in equal parts, the sum of \$3,448.90.

Very respectfully,

S. W. CURRIDEN,  
*Treasurer.*

A. J. FALLS, Esq.,  
*President Board of Trustees.*

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 249

Statement of disbursements on account of current expenses, pay roll, etc., of the Reform School of the District of Columbia, for the fiscal year ended June 30, 1892.

Date.	Name.	For what expended.	Amount.
1891.			
July....	Pay roll for July.....	Officers.....	\$751. 00
	do.....	Teachers.....	290. 00
	do.....	Watch.....	87. 50
	do.....	Compensation.....	47. 00
August.	Beall & Baker.....	Groceries.....	39. 14
	Hume & Co.....	do.....	108. 24
	Browning & Middleton.....	do.....	184. 61
	James F. Oyster.....	Butter.....	75. 04
	Hygienic Ice Co.....	Ice.....	33. 00
	Wm. M. Galt & Co.....	Flour.....	346. 22
	Thos. T. Keane.....	Meat.....	101. 13
	G. F. Swift & Co.....	do.....	102. 80
	R. A. Golden.....	Fish.....	2. 00
	Lansburgh & Bro.....	Dry goods.....	11. 91
	Eiseman Brothers.....	Clothing.....	48. 50
	C. H. Garden & Co.....	Hats.....	29. 93
	Aug. Thomas & Co.....	Cloth.....	64. 69
	Robert Cohen.....	Shoes.....	45. 90
	W. L. King.....	Shoe findings.....	25. 98
	Washington Gas Light Co.....	Gas.....	29. 00
	F. P. May & Co.....	Hardware.....	21. 72
	M. W. Beveridge.....	Tableware.....	23. 55
	L. H. Schneider's Son.....	Hardware.....	16. 35
	C. Gieble.....	Repairing carts.....	29. 75
	Columbia Railway Company.....	Manure.....	35. 00
	P. Mann & Co.....	Force pump.....	13. 00
	John A. Bates.....	Seed.....	11. 30
	George E. McElfresh.....	Printing.....	10. 50
	Tschiffely & Evans.....	Medicine.....	18. 70
	J. E. Berry.....	Conveyance.....	20. 00
	J. R. Francis.....	Paint.....	3. 75
	George Ryneal, jr.....	Paint, etc.....	16. 07
	Guy, Curran & Co.....	Dry goods, etc.....	64. 21
	Pay roll for August.....	Officers, etc.....	751. 00
	do.....	Teachers.....	290. 00
	do.....	Watchmen.....	92. 50
	do.....	Compensation.....	28. 50
	Edna Arnold.....	do.....	2. 50
	N. Macdaniel.....	Transportation.....	25. 50
	do.....	do.....	17. 50
	G. A. Shallenberger, superintendent.....	Sundries.....	39. 09
	A. R. Adams.....	Compensation.....	6. 50
Sept....	G. A. Shallenberger, superintendent.....	Sundries.....	21. 49
	A. R. Adams.....	Compensation.....	12. 00
	N. Macdaniel.....	Transportation.....	17. 50
	Wm. M. Galt & Co.....	Flour.....	307. 10
	C. E. Hoover.....	Meat.....	188. 08
	Hume & Co.....	Groceries.....	26. 13
	Beall & Baker.....	do.....	75. 56
	Browning & Middleton.....	do.....	167. 74
	Robert Cohen.....	Shoes.....	15. 90
	W. L. King & Bro.....	Leather.....	23. 04
	Eiseman Brothers.....	Clothing.....	48. 00
	Woodward & Lothrop.....	Dry goods.....	62. 36
	Lewis Baar, agent.....	Repairing sewing machine.....	5. 18
	Guy, Curran & Co.....	Dry goods.....	24. 73
	Tschiffely & Evans.....	Medicine.....	24. 05
	Chas. A. Wells.....	Medical attendance.....	116. 00
	Columbia Railway Co.....	Manure.....	35. 00
	Wm. Ballantyne & Son.....	Books.....	9. 95
	O'Neill Brothers.....	Blacksmithing.....	16. 75
	Oppie Anderson.....	do.....	24. 85
	Hutchinson Brothers.....	Stove linings.....	8. 75
	J. Karr.....	Repairs.....	2. 50
	Thos. Somerville & Sons.....	Pipe, etc.....	7. 17
	F. P. May & Co.....	Tools.....	4. 95
	M. W. Beveridge.....	Houseware.....	22. 58
	A. J. Joyce's Sons.....	Carriage repairs.....	39. 50
	P. Mann.....	Cider mill.....	13. 00
	N. Studer.....	Plants.....	6. 00
	W. E. Clarke.....	Seed, etc.....	3. 35
	G. N. Holland.....	Cement.....	7. 50
	George Ryneal, jr.....	Paint.....	11. 20
	L. H. Schneider's Son.....	Hardware.....	4. 20
	George P. Zurhurst.....	Conveyance.....	4. 00
	J. E. Berry.....	do.....	20. 00
	W. R. Speare.....	Undertaking.....	30. 00
	J. T. Walker's Sons.....	Cement.....	9. 00
	J. R. Francis.....	Paint.....	2. 50



## 250 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1891.			
Sept .....	Thos. W. Smith .....	Lumber .....	\$30.80
	A. Richards & Co. ....	Brick .....	9.00
	J. P. Agnew & Co. ....	Coal .....	29.50
	James F. Oyster .....	Butter .....	93.73
	Washington Gas Light Co .....	Gas .....	39.00
	Thos. Wightman & Co .....	Glass .....	14.92
	Pay roll for September .....	Officers .....	751.00
	do .....	Teachers .....	290.00
	do .....	Watch .....	92.50
	do .....	Compensation .....	52.50
	G. A. Shallenberger, superintendent .....	Sundries .....	35.05
	A. R. Adams .....	Compensation .....	9.60
	S. W. Curriden .....	Services .....	150.00
	John Dixon .....	Painting .....	150.00
	Hume & Co .....	Groceries .....	65.87
	Beall & Baker .....	do .....	65.37
	Hygienic Ice Co. ....	Ice .....	95.95
	Tschiffely & Evans .....	Medicine .....	14.80
	J. J. Hogan .....	Oysters .....	8.10
	Washington Gas Light Co .....	Gas .....	47.50
	Guy, Curran & Co. ....	Dry goods .....	46.01
	Eiseman Brothers .....	Clothing .....	41.00
	Lansburgh & Bro .....	Dry goods .....	75.03
	Robert Cohen & Sons .....	Shoes .....	15.95
	W. L. King .....	Leather, etc .....	23.84
	George Y. Hansell .....	Repairs .....	18.25
	J. T. Walker's Sons .....	Fire brick .....	15.00
	S. S. Shedd & Bro. ....	Gas fixtures .....	8.60
	George Ryneal, jr .....	Paint, etc .....	37.38
	F. P. May & Co .....	Hardware .....	6.36
	W. H. Houghton Manufacturing Co .....	Repairs .....	18.00
	Oppie Anderson .....	Blacksmithing .....	11.30
	Columbia Railway Co .....	Manure .....	35.00
	C. Giebel .....	Repairing wagons .....	44.00
	Wm. E. Clarke & Co .....	Tools .....	35.44
	K. Kneessi's Sons .....	Harness .....	18.90
	J. D. Free, jr .....	Papers .....	8.16
	George E. McElfresh .....	Stationery .....	3.00
	J. C. Addison .....	do .....	6.12
	M. W. Beveridge .....	Houseware .....	45.39
	C. and P. Telephone Co .....	Services .....	62.50
	Thos. Somerville & Sons .....	Iron works .....	8.12
	Evening Star Newspaper Co .....	Advertising .....	11.25
	George P. Zurhurst .....	Conveyance .....	4.00
	J. E. Berry .....	do .....	8.00
	Thos. W. Smith .....	Lumber .....	19.09
	Andrew Lynch .....	Bricklaying .....	88.00
	Woodward & Lothrop .....	Dry goods .....	209.74
	W. M. Galt & Co. ....	Flour, etc .....	317.50
	Nelson Morris & Co .....	Meat .....	141.52
	James F. Oyster .....	Butter .....	108.99
	Browning & Middleton .....	Groceries .....	160.12
	Charles Werner .....	Coal .....	579.23
	Ivy City Brick Co. ....	Brick .....	86.00
	W. M. Galt & Co. ....	Flour, etc .....	304.34
	Pay roll for October .....	General .....	740.00
	do .....	Teachers .....	290.00
	do .....	Watchmen .....	95.00
	do .....	Compensation .....	72.50
	G. F. Swift & Co. ....	Meat .....	175.81
	J. J. Hogan .....	Oysters .....	20.50
	Beall & Baker .....	Groceries .....	53.41
	Hume & Co .....	do .....	55.83
	Browning & Middleton .....	do .....	267.93
	Hygienic Ice Co. ....	Ice .....	22.90
	James F. Oyster .....	Butter .....	30.58
	Lansburgh & Bro .....	Dry goods .....	204.59
	Eiseman Bros .....	Clothing .....	37.50
	C. H. Garden & Co. ....	Caps .....	61.75
	W. L. King & Bro .....	Leather, etc .....	24.92
	Robert Cohen & Son .....	Shoes .....	62.05
	Washington Gaslight Co .....	Gas .....	69.75
	Wm. Ballantyne & Sons .....	Books .....	31.59
	George E. McElfresh .....	Printing .....	4.25
	L. H. Schneider's Sons .....	Hardware .....	18.56
	M. W. Beveridge .....	Tableware .....	18.58
	Stohn & Fiske .....	Washing machine .....	18.00
	Chas. A. Wells .....	Medical attendance .....	116.00
	Tschiffely & Evans .....	Medicine .....	19.25
	Oppie Anderson .....	Blacksmithing .....	6.05
	O'Neill Bros .....	do .....	13.75
Oct .....			

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 251

Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1891.			
Oct .....	W. H. Ernest .....	Flower pots .....	\$18.00
	Columbia Railway Co .....	Manure .....	35.00
	Wm. E. Clarke & Co. ....	Seed .....	9.00
	Melville Lindsey .....	Hose .....	4.40
	George I. Mueller .....	Sundries .....	5.70
	G. A. Shallenberger, superintendent .....	do .....	26.46
	Robert Leitch & Sons .....	Polish .....	1.65
	J. E. Berry .....	Conveyance .....	28.00
	George W. Knox .....	do .....	15.00
	George Ryneal, jr .....	Glass .....	49.87
	W. H. Houghton Manufacturing Co. ....	Carpet .....	139.94
	F. P. May & Co. ....	Hardware .....	17.04
	Thomas W. Smith .....	Lumber .....	22.37
	Allen R. Adams .....	Compensation .....	24.40
	Andrew Lynch .....	Repairs .....	16.00
Nov.....	Pay roll for November .....	General .....	751.00
	do .....	Teachers .....	293.33
	do .....	Watch .....	88.00
	do .....	Compensation .....	39.50
	A. Baumann .....	do .....	48.00
	Guy, Curran & Co. ....	Sundries .....	59.56
	Thomas Somerville & Sons .....	Pipe, etc .....	14.64
	G. A. Shallenberger, superintendent .....	Sundries .....	30.10
	John Dixon .....	Painting .....	70.00
	Allen R. Adams .....	Compensation .....	10.35
	Nelson Morris .....	Meat .....	160.87
	J. J. Hogan .....	Oysters .....	15.95
	W. M. Galt & Co .....	Flour .....	253.34
	Stiles & Corby .....	Bread .....	4.00
	Hume & Co .....	Groceries .....	91.32
	Beall & Baker .....	do .....	83.58
	Browning & Middleton .....	do .....	141.02
	James F. Oyster .....	Butter .....	146.21
	Hygienic Ice Co .....	Ice .....	11.60
	Woodward & Lothrop .....	Dry goods .....	72.98
	Eiseman Bros .....	Clothing .....	53.50
	Aug. Thomas & Co. ....	Caps .....	35.50
	B. Salomon .....	Hats .....	12.88
	Guy, Curran & Co. ....	Sundries .....	27.25
	Robert Cohen & Sons .....	Shoes .....	63.40
	W. L. King & Bro. ....	Leather .....	10.01
	Tschiffely & Evans .....	Medicine .....	15.80
	Washington Gaslight Co. ....	Gas .....	70.00
	Wm. Ballantyne & Sons .....	Stationery .....	9.72
	George E. McElfresh .....	Printing .....	2.00
	L. H. Schneider's Sons .....	Hardware .....	23.74
	M. W. Beveridge .....	Houseward .....	17.78
	J. E. Berry .....	Conveyance .....	36.00
	S. S. Shedd & Bro. ....	Gas fixtures .....	3.30
	J. H. Wilkerson .....	Inspecting boilers .....	25.00
	Mike Dorsch .....	Kraut .....	10.00
	Oppie Anderson .....	Blacksmithing .....	8.60
	Columbia Railway Co .....	Bone dust .....	35.00
Nov.....	Wm. E. Clarke & Co. ....	do .....	4.20
	J. R. Francis .....	Paint .....	2.00
	Daniel Hannan .....	Spigots .....	3.50
	George N. Holland .....	Cement, etc .....	10.88
	Thos. Somerville & Sons .....	Pipe fitting .....	11.10
	W. H. Wilson .....	Carpentering .....	16.00
	Thos. W. Smith .....	Lumber .....	15.30
	Potomac Terra Cotta Co .....	Pipe .....	10.06
	Ward & Cunningham .....	Plumbing .....	31.30
	Wash. B. Williams .....	Carpets .....	96.50
	J. C. Addison .....	Stationery .....	8.07
Dec.....	Pay roll for December .....	General .....	751.00
	do .....	Teachers .....	294.00
	do .....	Watchmen .....	92.50
	do .....	Compensation .....	64.50
	Browning & Middleton .....	Groceries .....	159.57
	James F. Oyster .....	Butter .....	97.58
	Armour & Co .....	Butterine .....	12.00
	Eiseman Bros .....	Clothing .....	32.50
	Geo. E. McElfresh .....	Printing .....	4.25
	Tschiffely & Evans .....	Medicine .....	26.90
	R. J. Kennedy .....	Coal .....	1,066.40
	Harper Bros .....	Subscription .....	10.00
	George I. Mueller .....	Sundries .....	24.60
	Geo. P. Zurhorst .....	Conveyance .....	8.00
	George Ryneal .....	Glass .....	20.30
	do .....	Paint .....	24.60
	Thos. W. Smith .....	Lumber .....	24.89

# 252 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1891.			
Dec.....	Columbia Railway Co .....	Manure.....	\$35.00
	Peter Henderson .....	Bulbs .....	18.00
	O'Neill Bros.....	Blacksmithing.....	12.00
	E. Burgdorf.....	Bay horse .....	160.00
	Lansburgh & Bro .....	Dry goods .....	91.02
	G. A. Shallenberger, superintendent .....	Sundries.....	15.09
	Phoenix Beef Co.....	Meat .....	144.93
	J. J. Hogan.....	Oysters .....	26.50
	W. M. Galt & Co .....	Flour, etc.....	294.90
	Beall & Baker.....	Groceries.....	106.27
	Hume & Co .....	do .....	101.62
	Hygienic Ice Co.....	Ice.....	11.40
	C. Denekas .....	Yeast.....	64.75
	Woodward & Lothrop.....	Dry goods.....	30.56
	Lansburgh & Bro .....	do .....	71.88
	Guy, Curran & Co.....	Sundries.....	49.81
	Jos. Auerbach.....	Hats.....	14.47
	Robert Cohen & Sons.....	Shoes.....	46.30
	F. P. May .....	Hardware .....	35.81
	M. W. Beveridge .....	Houseware .....	25.46
	Wm. Ballantyne & Sons.....	Stationery .....	26.32
	Chas. A. Wells .....	Medical attendance .....	94.00
	Washington Gaslight Co .....	Gas.....	99.75
	Geo. N. Holland .....	Lanterns .....	5.55
	J. E. Berry .....	Conveyance.....	12.00
	C. and P. Telephone Co .....	Services .....	70.00
	S. S. Shedd & Bro .....	Gas fixtures .....	4.20
	B. F. Guy & Co.....	Repairs.....	4.02
	A. J. Joyce's Sons .....	Buggy repairs .....	47.75
	Hutchinson Bros.....	Repairs.....	17.12
	K. Kneessi's Sons .....	Harness repairs .....	21.95
	Oppie Anderson.....	Blacksmithing.....	3.60
	Chas. Dickson, agent .....	Rental gas governor .....	43.37
	Edward S. Schmid.....	Tobacco stems.....	5.94
	S. W. Curriden .....	Services .....	150.00
1892.			
Jan.....	D. W. Magrath .....	Wagon .....	72.50
	B. P. Murray .....	Entertainment.....	10.00
	Pay roll for January .....	General .....	751.00
	do .....	Teachers .....	274.00
	do .....	Watchman .....	92.50
	do .....	Compensation .....	64.50
	G. A. Shallenberger, superintendent .....	Sundries.....	16.19
	Beall & Baker .....	Groceries.....	45.30
	Hume & Co .....	do .....	79.54
	Browning & Middleton.....	do .....	158.04
	James F. Oyster.....	Butter.....	61.96
	Armour & Co .....	Butterine .....	23.40
	Hygienic Ice Co.....	Ice.....	5.80
	Wm. M. Galt & Co .....	Flour.....	285.30
	Nelson Morris & Co.....	Meat .....	143.46
Jan .....	J. J. Hogan.....	Oysters.....	14.90
	Woodward & Lothrop.....	Dry goods .....	34.96
	Lansburgh & Bro .....	do .....	101.40
	Eiseman Bros.....	Clothing.....	56.00
	Guy, Curran & Co .....	Sundries.....	29.66
	Robert Cohen & Son .....	Shoes.....	81.85
	W. L. King & Bro .....	Shoe findings .....	14.97
	Washington Gaslight Co .....	Gas.....	108.75
	F. L. Kilborne.....	Professional services .....	14.00
	Tschiffely & Evans .....	Medicine .....	32.97
	J. C. Addison.....	Stationery .....	4.07
	Wm. Ballantyne & Sons.....	do .....	26.93
	Wm. E. Stockett.....	Record books .....	2.50
	L. H. Schneider's Sons.....	Hardware .....	1.30
	M. W. Beveridge .....	Houseware .....	19.20
	Columbia Railway Co.....	Manure.....	35.00
	Oppie Anderson.....	Blacksmithing .....	18.80
	J. E. Berry .....	Conveyance .....	16.00
	Robert Leitch & Sons .....	Polish .....	2.00
	J. Karr .....	Sundries.....	6.00
	James Hughes .....	Bricklaying .....	17.30
	Ward & Cunningham .....	Roofing.....	24.43
	George N. Holland .....	Cement, etc.....	10.40
	Thos. Somerville & Sons .....	Pipe fittings.....	4.96
Feb.....	George Ryneal, jr .....	Paint.....	16.40
	Allen R. Adams.....	Compensation .....	19.80
	N. Macdaniel.....	Transportation .....	15.20
	F. P. May & Co.....	Hardware .....	7.10
	Pay roll for February .....	General .....	751.00
	do.....	Teachers .....	280.00



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 253

Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1892.			
Feb.....	Pay roll for February.....	Watchmen.....	\$95.00
	do.....	Compensation.....	31.50
	Browning & Middleton.....	Groceries.....	115.85
	Hume & Co.....	do.....	94.99
	Hygienic Ice Co.....	Ice.....	5.70
	James F. Oyster.....	Butter.....	57.42
	Armour & Co.....	Butterine.....	30.00
	W. M. Galt & Co.....	Flour, etc.....	281.60
	J. J. Hogan.....	Oysters.....	14.90
	Woodward & Lothrop.....	Dry goods.....	130.16
	Lansburgh & Bro.....	do.....	40.03
	Guy, Curran & Co.....	Sundries.....	30.35
	Robert Cohen & Son.....	Shoes.....	28.70
	W. L. King & Bro.....	Shoe findings.....	30.22
	Washington Gaslight Co.....	Gas.....	103.75
	Jno. A. McCormick.....	Services.....	4.50
	Tschiffely & Evans.....	Medicine.....	20.10
	L. H. Schneider's Son.....	Wheelbarrow.....	7.50
	F. P. May & Co.....	Hardware.....	13.20
	M. W. Beveridge.....	Houseware.....	17.96
	George E. McElfresh.....	Printing.....	8.00
	Wm. Ballantyne & Sons.....	Stationery.....	20.77
	Columbia Railway Co.....	Manure.....	35.00
	O'Neill Bros.....	Blacksmithing.....	10.25
	Oppie Anderson.....	do.....	8.30
	Wm. E. Clarke & Co.....	Seeds, etc.....	8.76
	Edward S. Schmid.....	Tobacco stems.....	9.00
	J. E. Berry.....	Conveyance.....	20.00
	Geo. P. Zurhorst.....	do.....	4.00
	E. Burgdorf.....	Stabling team.....	10.25
	Thomas Somerville & Sons.....	Valves, etc.....	9.52
	S. S. Shedd & Bro.....	Chandelier.....	10.00
	Wm. H. Wilson.....	Carpentering.....	63.00
	George Ryneal, jr.....	Paint, etc.....	11.44
	Geo. N. Holland.....	Cement, etc.....	10.15
	Eiseman Bros.....	Clothing.....	42.67
	Aug. Thomas & Co.....	Jackets.....	88.20
	Beall & Baker.....	Groceries.....	29.05
Mar.....	H. A. Cooke.....	Transmitter.....	4.00
	Pay roll for March.....	General.....	751.00
	do.....	Teachers.....	290.00
	do.....	Watchmen.....	92.50
	do.....	Compensation.....	60.50
	Geo. B. Heekman.....	Sundries.....	9.25
	G. A. Shallenberger, superintendent.....	do.....	22.42
	Allen R. Adams.....	Compensation.....	14.60
	Beall & Baker.....	Groceries.....	58.20
	Frank Hume.....	do.....	143.02
	Browning & Middleton.....	do.....	120.13
	James F. Oyster.....	Butter.....	69.00
	Armour & Co.....	Butterine.....	31.11
	W. M. Galt & Co.....	Flour.....	239.41
	Nelson Morris & Co.....	Meat.....	167.86
	J. J. Hogan.....	Oysters.....	7.00
	R. A. Young.....	Fish.....	7.05
	Woodward & Lothrop.....	Dry goods.....	10.79
	Lansburgh & Bro.....	do.....	72.21
	Aug. Thomas & Co.....	Cloth.....	72.51
	Eiseman Bros.....	Clothing.....	40.50
	Guy, Curran & Co.....	Sundries.....	20.63
	B. Salomon.....	Caps.....	4.20
	F. P. May.....	Hardware.....	10.34
	M. W. Beveridge.....	Houseware.....	20.34
	Washington Gaslight Co.....	Gas.....	88.50
	W. L. King.....	Leather.....	46.94
	Tschiffely & Evans.....	Medicine.....	13.05
	Geo. E. McElfresh.....	Printing.....	6.75
	J. C. Addison.....	Stationery.....	7.11
	J. D. Free, jr.....	do.....	10.65
	H. L. McQueen.....	Printing.....	5.25
	C. and P. Telephone Co.....	Services.....	70.00
	J. E. Berry.....	Conveyance.....	16.00
	T. W. Widdecombe.....	do.....	12.00
	Edward F. Droop.....	Rental piano.....	10.00
	L. M. Crothers.....	Pig.....	15.00
	W. E. Clarke & Co.....	Tools.....	9.20
	K. Kneessi's Sons.....	Harness.....	15.00
	Melville Lindsey.....	Hose.....	18.00
	Oppie Anderson.....	Blacksmithing.....	10.25
	Peter Henderson.....	Seeds.....	38.51

# 254 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1892.			
Mar ....	Wm. H. Wilson .....	Labor .....	\$91.00
	Ward & Cunningham .....	Roofing .....	26.87
	Daniel Hannan .....	Spigots .....	3.30
	Hutchinson Bros. ....	Repairs .....	10.14
	George N. Holland .....	Lime .....	3.40
	George Ryneal, jr. ....	Paint .....	14.81
	J. L. Mott Iron Works .....	Repairs .....	3.77
	Wash. B. Williams .....	Furniture .....	132.55
	W. H. Houghton Manufacturing Co. ....	do .....	75.00
	S. W. Curriden .....	Services .....	150.00
	John Dixon .....	Painting .....	27.00
	G. A. Shallenberger, superintendent .....	Sundries .....	15.86
Apr ....	Chas. A. Wells .....	Medical services .....	96.00
	G. F. Swift .....	Meat .....	144.07
	R. J. Kennedy .....	Coal .....	1,236.97
	N. Macdaniel .....	Transportation .....	30.40
	John Saul .....	Trees .....	27.20
	Payroll for April .....	General .....	751.00
	do .....	Teachers .....	290.00
	do .....	Watchmen .....	94.75
	do .....	Compensation .....	81.50
	L. P. Thompson .....	Conveyance .....	11.00
	Andrew Barbour .....	Repairs .....	4.50
	Allen R. Adams .....	Compensation .....	99.37
	G. A. Shallenberger, superintendent .....	Sundries .....	29.98
	Browning & Middleton .....	Groceries .....	168.14
	Frank Hume .....	do .....	92.45
	James F. Oyster .....	Butter .....	130.06
	Hygienic Ice Co. ....	Ice .....	22.74
	Wm. M. Galt & Co. ....	Flour .....	356.16
	R. A. Golden .....	Fish .....	16.45
	Lansburgh & Bro. ....	Dry goods .....	132.06
	Woodward & Lothrop .....	do .....	20.85
	Eiseman Bros. ....	Clothing .....	19.50
	C. H. Garden & Co. ....	Hats .....	39.36
	B. Salomon .....	Caps .....	7.60
	J. S. Auerbach .....	do .....	4.90
	H. King, jr. ....	Sundries .....	4.15
	Guy, Curran & Co. ....	do .....	24.67
	Robert Cohen .....	Shoes .....	25.85
	W. L. King .....	Leather .....	70.21
	Washington Gaslight Co. ....	Gas .....	74.50
	Chas. A. Wells .....	Medical services .....	62.00
	Tschiffely & Evans .....	Medicine .....	18.85
	M. W. Beveridge .....	Tableware .....	35.30
	L. H. Schneider's Son .....	Hardware .....	9.88
	F. P. May & Co. ....	do .....	12.86
	Wm. Ballantyne & Son .....	Stationery .....	27.20
	H. L. McQueen .....	Printing .....	4.25
	T. W. Widdecombe .....	Conveyance .....	8.00
	J. E. Berry .....	do .....	20.00
	Columbia Railway Co. ....	Manure .....	70.00
	Talbert & Clark .....	Seed .....	19.97
	W. E. Clark & Co. ....	Sundries .....	3.40
	Oppie Anderson .....	Blacksmithing .....	7.70
	O'Neill Bros. ....	do .....	15.00
	T. W. Smith .....	Lumber .....	84.16
	Wm. H. Wilson .....	Labor .....	85.75
	Louis Baar, agent .....	Repairs .....	3.32
	Robert Leitch & Sons .....	do .....	1.37
	George Ryneal, jr. ....	Paint, etc. ....	11.34
	A. J. Joyce & Sons .....	Conveyance .....	11.00
	Yates & Byrne .....	One horse .....	175.00
	G. F. Swift & Co. ....	Meat .....	158.25
May ....	Pay roll for May .....	General .....	751.00
	do .....	Teachers .....	290.00
	do .....	Watchmen .....	92.50
	do .....	Compensation .....	82.50
	Ward & Cunningham .....	Canopy .....	49.00
June....	G. A. Shallenberger, superintendent .....	Sundries .....	10.60
	A. R. Adams .....	Compensation .....	10.25
	William M. Galt & Co. ....	Flour .....	253.91
	Browning & Middleton .....	Groceries .....	128.34
	Frank Hume .....	do .....	106.60
	R. A. Golden .....	Fish .....	19.40
	Nelson Morris & Co. ....	Beef .....	195.31
	Kingsley Bros. Cr. Co. ....	Butter .....	74.62
	Hygienic Ice Co. ....	Ice .....	28.32
	Washington Gaslight Co. ....	Gas .....	58.25
	Tschiffely & Evans .....	Medicine .....	13.95

## Statement of disbursements of current expenses of the Reform School, etc.—Continued.

Date.	Name.	For what expended.	Amount.
1892.			
June ...	Woodward & Lothrop.....	Dry goods .....	\$13. 90
	Lansburgh & Bro .....	do .....	102. 53
	Eiseman Bros .....	Clothing .....	38. 50
	Aug. Thomas & Co .....	Caps .....	18. 00
	Guy, Curran & Co .....	Dry goods .....	21. 36
	W. L. King .....	Leather, etc .....	96. 34
	Robert Cohen & Sons .....	Shoes .....	10. 25
	M. W. Beveridge .....	Tableware .....	10. 67
	W. E. Clark & Co .....	Seed, etc .....	20. 22
	F. P. May & Co .....	Farm tools, etc .....	18. 85
	T. W. Smith .....	Lumber .....	61. 41
	George Ryneal, jr .....	Paint .....	35. 74
	William H. Ernest .....	Flower pots .....	8. 20
	Oppie Anderson .....	Blacksmithing .....	8. 85
	Columbia Railway Co .....	Manure .....	35. 00
	William Smith .....	Lime .....	7. 20
	George N. Holland .....	do .....	8. 50
	S. J. Haislett & Co .....	Awning .....	4. 00
	T. W. Widdecombe .....	Conveyance .....	28. 00
	J. E. Berry .....	do .....	12. 00
	A. Gude & Bro .....	Plants .....	37. 50
	William H. Wilson .....	Carpentering .....	85. 75
	W. B. Williams .....	Furniture .....	61. 62
	W. H. Houghton Manufacturing Co .....	Carpet .....	24. 20
	J. C. Addison .....	Stationery .....	6. 97
	R. Leitch & Sons .....	Pipe, etc .....	10. 88
	Pay roll for June .....	General .....	751. 00
	do .....	Teachers .....	325. 00
	do .....	Compensation .....	69. 50
	O. E. Newton .....	Transportation .....	31. 95
	Browning & Middleton .....	Groceries .....	102. 38
	Beall & Baker .....	do .....	53. 64
	C. Denekas .....	Yeast .....	63. 70
	Hygienic Ice Co .....	Ice .....	50. 12
	Tschiffely & Evans .....	Medicine .....	17. 47
	Chas. A. Wells .....	Medical attendance .....	70. 00
	Woodward & Lothrop .....	Dry goods .....	21. 77
	Eiseman Bros .....	Clothing .....	27. 50
	Lansburgh & Bro .....	Dry goods .....	17. 26
	Guy, Curran & Co .....	Sundries .....	31. 90
	Washington Gaslight Co .....	Gas .....	43. 00
	Wm. Ballantyne & Son .....	Books .....	30. 76
	H. L. McQueen .....	Printing .....	40. 00
	K. Kneessi's Sons .....	Harness .....	33. 00
	Oppie Anderson .....	Blacksmithing .....	11. 25
	L. H. Schneider's Sons .....	Hardware .....	18. 47
	Thos. Somerville & Sons .....	Pipe .....	7. 77
	Talbert & Clark .....	Seed .....	22. 61
	Wm. E. Clark .....	Seed, etc .....	19. 21
	Geo. N. Holland, jr .....	Lime .....	5. 10
	James Karr .....	Repairs .....	6. 00
	Daniel Shanahan .....	Lime .....	11. 20
	T. W. Smith .....	Lumber .....	9. 00
	B. F. Huy & Co .....	Repairs .....	3. 00
	F. P. May & Co .....	Hardware .....	4. 12
	W. B. Williams .....	Furniture .....	44. 25
	M. W. Beveridge .....	Houseware .....	19. 12
	J. E. Berry .....	Conveyance .....	12. 00
	J. J. Lucas .....	do .....	20. 00
	C. and P. Telephone Co .....	Services .....	70. 00
	G. A. Shallenberger, superintendent .....	Sundries .....	11. 86
	Pay roll, June .....	Watchmen .....	92. 50
	Andrew Barbour .....	Repairs .....	5. 00
	Scott Poles .....	do .....	37. 00
	Wm. M. Galt & Co .....	Flour .....	281. 76
	Frank Hume .....	Groceries .....	76. 55
	James F. Oyster .....	Butter .....	101. 63
	G. F. Swift & Co .....	Meat .....	179. 67
	W. L. King .....	Shoe findings .....	74. 04
	O'Neill Bros .....	Blacksmithing .....	16. 75
	George Ryneal, jr .....	Oil .....	25. 25
	A. R. Adams .....	Compensation .....	36. 00
	S. W. Curriden .....	Services .....	150. 00
	Wm. H. Willson .....	Repairs .....	87. 50
	Andrew Barbour .....	Mason work .....	20. 00
	Isaac Green .....	Plastering .....	135. 00
	W. I. Anderson .....	Apples .....	7. 75
	Columbia Railway Co .....	Manure .....	35. 00
	A. J. Joyce's Sons .....	Carriage .....	360. 00



## 256 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Statement of disbursements of current expenses of the Reform School, etc.—Continued.*

Date.	Name.	For what expended.	Amount.
1892. June.....	W. R. Dieffendorfer.....	Dental services.....	\$13.00
	T. W. Smith.....	Lumber.....	30.77
	W. E. Clark & Co.....	Seed.....	58.00
	T. C. Basshor & Co.....	Pump, etc.....	646.94
	do.....	Repairs.....	191.50
	J. L. Henderson.....	Farm stock.....	60.00
	A. J. Joyce's Sons.....	Carriage repairs.....	86.25
	The Fairbanks Co.....	Platform scale.....	117.00
	J. H. Kuehling & Co.....	Lightning rods.....	110.00
	T. C. Basshor & Co.....	Fittings, etc.....	49.93
	T. C. Parsons & Co.....	Stanchions.....	18.75
	Total.....		42,344.77

*Statement of disbursements on account of boiler house, Reform School, District of Columbia, for the fiscal year ended June 30, 1892.*

Date.	Name.	For what expended.	Amount.
1891. July.....	Thos. Weightman & Co.....	Glass.....	\$71.25
	Andrew Barbour.....	Mason.....	22.00
Sept.....	Chas. Parker.....	Sand.....	8.50
Aug.....	Ivy City Brick Co.....	Brick.....	294.18
	T. W. Smith.....	Lumber.....	28.29
	N. Anderson.....	Carpentering.....	32.00
	Geo. N. Holland.....	Cement.....	39.20
	Wm. H. Willson.....	Carpentering.....	104.00
	Thos. Fisher.....	Labor.....	40.50
	Clark Bros.....	Lime.....	54.75
Oct.....	Andrew Lynch.....	Bricklaying.....	388.75
	Jno. Dixon.....	Painting.....	165.00
	Thos. W. Smith.....	Lumber.....	53.04
	Morgan, Thomas & Co.....	Roofing, etc.....	70.30
	Acker & Co.....	Stone work.....	32.07
	Ward & Cunningham.....	Roofing.....	131.00
	Libbey, Bittinger & Miller.....	Lumber.....	109.00
	E. E. Jackson & Co.....	do.....	45.68
	do.....	do.....	187.00
	Ivy City Brick Co.....	Brick.....	208.01
	E. E. Jackson & Co.....	Lumber.....	3.75
	W. H. Willson.....	Labor.....	108.00
	F. P. May.....	Hardware.....	9.94
	Thos. W. Smith.....	Lumber.....	17.37
Nov.....	Andrew Lynch.....	Bricklaying.....	20.00
	Geo. N. Holland.....	Cement.....	24.90
	L. H. Schneider's Son.....	Hardware.....	16.38
	W. H. Willson.....	Labor.....	56.00
	Ivy City Brick Co.....	Brick.....	57.00
	Total.....		2,397.86
	Amount of appropriation, boiler house.....		2,400.00
	Leaving unexpended.....		2.14

Amount of appropriation, one 100 horse-power boiler..... \$1,500  
 Paid T. C. Basshor & Co., one boiler..... 1,500

Amount of appropriation for steam-heating old family building, etc..... 1,500  
 Paid T. C. Basshor & Co., as per contract..... 1,500

## REPORT OF ATTENDING PHYSICIAN.

REFORM SCHOOL OF THE DISTRICT OF COLUMBIA,  
*Washington, D. C., June 30, 1892.*

GENTLEMEN: During the year just passed, while we have happily had no epidemic, there have been quite a number of cases of serious illness, one boy, Matthew Boon, aged 15, dying August 11 of peritonitis. Among so many boys there is likely to be not only illness, but accidents of various kinds, many of them so trifling and temporary as not to require detention in the hospital. During the year there were three cases of fracture of the leg, all having been received while at play.

Every effort is made to keep the buildings in healthful and wholesome condition; the dormitories are daily scrubbed, and carbolic acid added. The closets are flushed with a solution of copperas, 75° to a barrel of water; our windows kept open, and basement ventilated and whitewashed. I make frequent inspection, and know that this work is thoroughly done. On the outside the same rule as to cleanliness is observed. Rubbish and litter is destroyed, and where our sewers empty copperas and quicklime are freely used. And while in this connection, I desire to urgently recommend that the sewer be carried some 150 yards farther from the buildings, where I find it can be emptied into a ravine which will be fairly well flushed after any good rain.

I must further urge that the windows to the dormitories in family "A" building be supplied with wire netting on the outside. This will enable the windows to be raised to their full height, improving very materially the ventilation. This is more important than would appear at first sight, because of the overcrowded condition of the dormitories. In "A" family building, designed to accommodate 50 boys, between 65 and 75 are usually found sleeping; and the same ratio holds good as to the dormitories in the north wing of the main building. If I may be allowed, I will go still further and recommend that the number of inmates be reduced or more dormitory space be added.

I again renew my request that outside closets be added to "A" family building and the main buildings. An inspection of the closets now in use at the new building is the best argument I can offer.

Very respectfully,

CHARLES A. WELLS, M. D.,  
*Attending Physician.*

The Hon. BOARD OF TRUSTEES, REFORM SCHOOL, DISTRICT OF COLUMBIA.

---

EXHIBIT A.

POLICE COURT OF THE DISTRICT OF COLUMBIA,  
*Washington, D. C., September 10, 1892.*

SIR: I reply to your letter of the 8th instant, that it is impossible to overstate the great need of additional accommodations at the Boys' Reform School. There have been brought before me in the past year a number of boys charged with picking pockets and other crimes, including house breaking, for whom there was no room at the Reform School, and they were so young I that did not want to send them to jail or workhouse. Unless something is done to stop the criminal careers of such boys they will as men become hardened criminals, and cost society many times the amount it would cost to keep them at the Reform School, beside the loss of their honest labor as men. I have now at the workhouse two boys waiting for a vacancy at the school, one of whom, a boy about 10 years of age, helped to pick the pocket

of a lady at the market some weeks ago of \$370, and a few days ago he, with three others, picked the pocket of another lady in one of our markets. As a result of this crowded condition of the school, and the constant efforts of the judges to find room for such boys as I have just mentioned, another evil has arisen which could be obviated by more room: that is, the boys are discharged before they ought to be, and they go back to their old associates and very soon fall into the old life; but, under the circumstances, I do not see how it can be avoided. The boy discharged has had at least two years of a better life than any he has ever known before, and in his place is taken a boy who has arrived at the point where something must be done at once to save him or all chance of reformation is gone.

This city is increasing rapidly, and with the increase in population is necessarily an increase in the number of boys who ought, for the sake of society and their own sake, to be sent to the Reform School. I do not believe that a boy who has gone as far in the downward path as those I have referred to ought to be discharged before he becomes of age, and none others unless the evidence is very clear that they have reformed. I can not, of course, say in a letter all that is in my mind, but you can not emphasize too strongly the necessity for more buildings.

Very respectfully,

I. G. KIMBALL,  
*Judge Police Court.*

A. J. FALLS, Esq.,  
*President Board of Trustees, Reform School.*

---

EXHIBIT B.

POLICE COURT OF THE DISTRICT OF COLUMBIA,  
*Washington, D. C., September 6, 1892.*

DEAR SIR: In reply to your letter of July 20, asking for information as to how many boys under the age of 16 during the fiscal year ending June 30 last were committed to the jail and workhouse for want of room and accommodations in the Reform School, etc., it would be impossible for me to give you the exact number; but I should say that at least fifty were sent there for that reason, and probably twice that number were discharged or given a nominal fine for the same cause.

We have had a number of small boys arrested under the age of 16 for petty thieving around the market houses and on the public streets, and for want of a place to send them, they being of too tender years to be sent to jail to mingle with those who are more hardened in crime, the hands of the court have been tied, and they have been turned loose upon the community to repeat their nefarious acts. I sincerely trust that Congress at its next session will make provision whereby these boys can be provided for.

I would have answered your letter long ago, but I have been very busy, and things are now upside down, as we are now undergoing repairs. I trust you will pardon the delay.

Very truly, yours,

JOSEPH HARPER,  
*Deputy Clerk Police Court, D. C.*

Mr. A. J. FALLS,  
*President Reform School.*

---

EXHIBIT C.

WASHINGTON ASYLUM,  
*Washington, D. C., August 19, 1892.*

DEAR SIR: In reply to your letter of August 18, requesting information as to the number of colored boys in this institution, would state that there are now in the workhouse 21 boys of 16 years of age or under.

Very respectfully,

W. H. STOUTENBURGH,  
*Intendant Washington Asylum.*

A. J. FALLS, Esq.,  
*President Board of Trustees, Reform School, District of Columbia.*



EXHIBIT D.

UNITED STATES JAIL,  
*Washington City, D. C., September 3, 1892.*

SIR: In reply to yours of date September 1, I have to say, assuming that all under 16 years of age are here because of the crowded condition of the Reform School, that there are at this date 23, ranging in age from 10 years to 16. One or two may be older, and I feel quite sure one or two are less than 10.

I do hope you may be successful in your efforts to provide additional accommodations for these young violators of the law. This is no place for them; for, with all the precautions we take with them, they learn nothing but bad from older criminals, and give us more trouble than the older ones do while confined here.

Very respectfully,

J. B. BURKE,  
*Warden.*

A. J. FALLS,  
*President of Board.*

EXHIBIT E.—Comparative statement of forty-seven reformatory institutions throughout the United States, etc.—Continued.

Name and location of institution.	For year ending—	Walled or open.	Boys or girls.	Average number of inmates.	Salary of superintendent.	Salary of assistant superintendent.	Salary of matron.	Salaries of assistant matrons.
State Reform School, Meriden, Conn.	June 30, 1891	Open	Boys	434	\$3,000	None	\$1,000	\$300.
Industrial School for Girls, Middletown, Conn.	2 years, ending June 30, 1890.	do	Girls	217				
State Industrial School, Golden, Colo.	2 years, ending Dec. 31, 1891.	do	Boys	145	a 1,500	a \$780	\$600a	\$360. a
Ferris Industrial School, Wilmington, Del.	Dec. 31, 1891.	do	do	50	b 1,000	b 550	Superintendent's wife acts.	3 at \$180.
Reform School of the District of Columbia, Washington D. C.	June 30, 1891.	do	do	198	1,500	900	\$600	
State Reform School, Pontiac, Ill.	June 30, 1890.	Walled	Boys and young men.	375	2,500	1,800	\$500	\$480.
Indiana Reform School for Girls, Indianapolis, Ind.	Oct. 31, 1891	Open	Women and girls.	207	1,200	720	\$540 and \$360	\$360.
Indiana Reform School for Boys, Plainfield, Ind.	do	do	Boys	543	2,000	840	\$600	None.
State Industrial School for Boys, Eldora, Iowa.	2 years, ending July 1, 1891.	do	do	400	a 1,200	a 780	\$600a	\$300. a
Iowa State Industrial School for Girls, Mitchellville, Iowa.	do	do	Girls	117	1,500	None.	Withsuperintend-ent.	None.
State Reform School, Topeka, Kans.	Dec. 3, 1891.	do	Boys	213	1,000	480	\$300	\$240.
Louisville Industrial School of Reform, Louisville, Ky.	Aug. 31, 1891	do	Both	296.5				
Boys' House of Refuge, New Orleans, La.	Dec. 31, 1891.	Walled	Boys	96	1,200	480	None	None.
State Reform School, Cape Elizabeth, Me.	Nov. 30, 1891	do	do	100	1,000	900	\$400	None.
St. Mary's Industrial School, Baltimore, Md.	do	Open	Men and boys	403	c 150	c 150	None	None.
House of Refuge, Baltimore, Md.	Nov. 30, 1892	Walled	Boys	208	1,200	None.	None	None.
House of Reformation, Cheltenham, Md.	Nov. 30, 1891	Open	do	270	1,000	360	No salary.	None.
Massachusetts Reformatory, Concord, Mass.	Sept. 30, 1891	Walled	Men and boys	758	3,500	2,000	None	None.
Reformatory institutions at Deer Island, Mass.	13 mos., ending Jan. 31, 1892.	Open	Both sexes, adults and minors.	1,181	2,500	1,200	\$360	\$240 and \$300.
House of Industry, House of Reformation, Truant School.								
State Industrial School for Girls, Lancaster, Mass.	Sept. 30, 1891	do	Girls	89.01	1,000	650	\$350	\$300.
State Primary School, Monson, Mass.	do	do	Both	329	1,600	None.	\$400	\$300 and \$250.
Lycan School for Boys, Westboro, Mass.	do	do	Boys	200	1,800	600	\$450	\$250.
State Industrial Home for Girls, Adrian, Mich.	Dec. 30, 1891.	do	Girls	230	1,000	500	1 at \$375, 5 at \$350.	\$300.
Reform School, Lansing, Mich.	June 30, 1891.	do	Boys	502	2,500	1,200	\$420	None.
Minnesota State Reform School, Red Wing, Minn.	July 31, 1890	do	Boys and girls	280.5	1,600	1,000	\$400	\$540.
Minnesota State Reformatory, St. Cloud, Minn.	Dec. 31, 1890	Walled	Boys	135	3,000	1,000		
State Reform School, Booneville, Mo.	Dec. 31, 1891.	Open	do	100	1,200	720	\$500	None.
State Industrial School, Kearney, Nebr.	2 years, ending Mar. 31, 1893.	Open	do	275	2,000	1,200	\$600	
State Reform School, Jamesburg, N. J.	Oct. 31, 1891.	Open	Boys	335	1,500	None.	\$420	Female teachers.
State Industrial School for Girls, Trenton, N. J.	do	do	Girls	75	1,000		\$600	\$300.
New York State Reformatory, Elmira, N. Y.	Sept. 30, 1891.	Walled	Boys and men	1,204	3,500	1,000	None	None.
House of Refuge, Randall's Island, N. Y.	do	do	Both	500	3,500	2,000		

State Industrial School, Rochester, N. Y.	do	do	do	do	782	2,500	1,800	Female Depart- ment, \$1,000. Boys, primary, \$720.	\$300.
Catholic Protectory, Westchester, N. Y.	do	do	do	do	2,255	(c)	(c)	(c)	
Cincinnati House of Refuge, Cincinnati, Ohio.	Dec. 31, 1890.	do	do	do	305	1,680	1,200	\$600.	
Girls' Industrial Home, Delaware, Ohio.	Nov. 16, 1891.	do	do	Girls	294	1,200		\$400.	8 at \$300.
Boys' Industrial School, Lancaster, Ohio.	Nov. 15, 1891.	do	do	Boys	660	1,200	720	\$400.	
Pennsylvania Industrial Reformatory, Huntingdon, Pa.	2 years, ending Dec. 31, 1890.	Walled	do	Youths and girls.	400	a 5,000	a 1,800	None	None.
Pennsylvania Reform School, Morganza, Pa.	Sept. 30, 1891.	Open	do	Both	483	2,400	None.	\$800.	None.
House of Refuge, Philadelphia, Pa.	Dec. 31, 1891.	Walled	do	do	734	3,000	1,500	\$1,000.	\$600.
Oaklawn School for Girls, Howard, R. I.	do	Open	do	Girls	29	800			
Sockanosset School for Boys, Howard, R. I.	do	do	do	Boys	171	2,500	None.		\$180.
State Reform School, Plankinton, S. Dak.	do	do	do	Both	70	1,500		\$600.	
House of Correction and Reformatory, Gatesville, Tex.	do	Walled	do	do	147.5	1,800			
Vermont Reform School, Vergennes, Vt.	June 30, 1891.	Open	do	Both	90	1,200	500	\$500.	\$250 and \$200.
Wisconsin Industrial School, Milwaukee, Wis.	Oct. 1, 1890.	do	do	Girls and small boys.	175	1,000	300	2 at \$420, 1 at \$300, and 1 at \$240.	\$276.
Wisconsin Industrial School for Boys, Waukesha, Wis.	Mar. 1, 1892.	Partly walled.	do	Boys.	396	1,600	1,320	\$240.	None.
Total					17,357.51				

NOTE.—Blank spaces indicate that the information could not be obtained. *a* Per annum. *b* And wife. *c* Members of Christian societies. *d* Estimated. *e* Under the act of Congress all the moneys derived from labor of inmates must be covered into the Treasury of the United States, one-half to the credit of the United States and one-half to the credit of the District of Columbia. Under this law \$2,717.64 was so deposited at the close of the fiscal year, making the actual cost to the United States and District of Columbia of maintaining the school, \$37,854.41; and the pro rata cost of each inmate, \$191.18<sup>38</sup>. *f* Per month. *g* Made. *h* Clothing included under head of food.



EXHIBIT E.—Comparative statement of forty-seven reformatory institutions throughout the United States, etc.—Continued.

Name and location of institution.	Salaries of teachers.	Amount paid other employes.	Total salaries.	Food, groceries, etc.	Clothing.	Fuel and lights.	Other items of maintenance.	Total maintenance.	Total expenditures.	Total employees.	Pro rata cost of each inmate per annum.
State Reform School, Meriden, Conn.	\$300.....	\$11,928.67	\$19,128.67	\$17,923.84	\$4,448.20	\$7,644.43	\$27,897.16	\$57,913.63	\$77,042.30	40	\$177.5168
Industrial School for Girls, Middletown, Conn.	.....	.....	9,580.91	8,874.74	3,090.30	2,897.41	21,513.95	36,376.40	45,957.31	.....	211.7848
State Industrial School, Golden, Colo.	\$600.....	.....	19,248.30	13,867.30	3,714.82	2,963.93	30,907.08	47,739.21	66,987.51	17	230.9914
Ferris Industrial School, Wilmington, Del.	Assistant superintendent's wife acts.	300.00	2,102.00	2,438.89	.....	.....	.....	6,290.00	8,392.00	6	167.84
Reform School of the District of Columbia, Washington, D. C.	2 at \$660, 2 at \$600, and 2 at \$480.	5,751.67	12,771.67	10,006.75	648.24	3,193.24	13,952.15	27,800.38	40,572.05	37	204.9093
State Reform School, Pontiac, Ill.	Male, \$600 each; female, \$300 each.	.....	15,401.10	17,326.00	2,989.25	3,960.73	14,165.04	38,441.02	53,842.12	30	143.579
Indiana Reform School for Girls, Indianapolis, Ind.	\$360.....	5,853.60	10,103.36	8,195.58	4,041.95	3,232.27	14,407.04	29,876.94	39,980.30	19	193.1415
Indiana Reform School for Boys, Plainfield, Ind.	\$360, \$420, \$480, \$540 and \$600.	f 25.00 to 60.00	18,136.61	22,448.44	5,890.55	5,721.85	13,802.55	47,863.39	66,000.00	38	121.547
State Industrial School for Boys, Eldora, Iowa.	\$7,800.....	12,250.72	25,810.72	17,724.69	10,021.28	6,049.44	13,704.10	47,549.51	73,360.23	34	183.406
Iowa State Industrial School for Girls, Mitchellville, Iowa.	\$270a.....	a 810.00	8,585.26	9,159.42	2,940.79	2,950.17	5,001.54	20,051.92	28,637.18	14	244.7622
State Reform School, Topeka, Kans.	\$240.....	8,380.34	11,120.34	7,011.58	2,911.15	2,638.72	4,337.42	16,898.87	28,019.21	30	131.5456
Louisville Industrial School of Reform, Louisville, Ky.	.....	.....	10,371.92	10,363.76	2,749.87	2,526.60	8,998.23	24,638.46	35,010.38	.....	118.0789
Boys' House of Refuge, New Orleans, La.	None.....	2,127.60	3,807.60	4,596.52	798.39	297.15	340.32	6,032.45	9,840.05	7	102.5005
State Reform School, Cape Elizabeth, Me.	\$300.....	4,766.35	7,966.35	.....	1,556.48	465.37	.....	22,585.55	30,551.90	19	305.5188
St. Mary's Industrial School, Baltimore, Md.	\$150c.....	7,310.70	9,494.70	11,868.80	5,415.60	3,088.44	10,955.66	31,328.50	40,823.20	12	101.2982
House of Refuge, Baltimore, Md.	Male, \$500 each; female, \$300 each.	.....	11,838.57	11,526.20	2,638.00	3,916.08	15,483.78	33,564.06	45,402.63	.....	218.2819
House of Reformation, Cheltenham, Md.	5 at \$300.....	3,780.00	6,640.00	8,000.00	2,800.00	1,400.00	4,674.33	16,874.33	23,514.33	18	87.091
Massachusetts Reformatory, Concord, Mass.	None.....	63,507.43	69,007.43	47,278.39	10,194.98	11,810.57	37,139.49	106,423.43	175,430.86	90	231.4391
Reformatory institutions at Deer Island, Mass.: House of Industry, House of Reformation, Truant School.	1 at \$700, 3 at \$500.	30,788.50	37,138.50	52,234.16	13,484.34	11,957.81	36,969.29	114,645.60	151,784.10	86	128.5217

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 263

State Industrial School for Girls, Lancaster, Mass.	\$300.....	4,420.43	8,806.57	5,059.20	1,684.89	1,324.50	3,814.87	11,883.46	20,690.03	.....	232,461
State Primary School, Monson, Mass.	13 at \$250, 2 at \$360, 1 at \$500, 1 at \$540, 6 at \$300, 1 at \$250, 1 at \$400, 2 at \$600 6 at \$300 .....	12,038.44	17,628.59	14,797.59	6,989.13	2,590.21	9,239.08	33,616.01	51,244.60	50	156,957
Lyman School for Boys, Westboro, Mass.	1 at \$500, 1 at \$540, 6 at \$300, 1 at \$250, 1 at \$400, 2 at \$600 6 at \$300 .....	11,709.80	16,832.36	9,428.35	2,077.89	4,058.60	14,138.28	25,644.52	42,476.88	43	212,3844
State Industrial Home for Girls, Adrian, Mich.	1 at \$500, 1 at \$540, 6 at \$300, 1 at \$250, 1 at \$400, 2 at \$600 6 at \$300 .....	6,255.00	12,750.61	7,607.60	5,290.66	6,174.73	2,896.60	21,975.59	34,736.20	33	151,027
Reform School, Lansing, Mich..	Male, \$700 each; female, \$300 each \$1,800.....	12,525.68	16,225.68	14,431.77	6,545.33	6,811.76	52,336.81	96,351.35	112,577.03	41½	224,257
Minnesota State Reform School, Red Wing, Minn.	Male, \$700 each; female, \$300 each \$1,800.....	7,724.90	13,064.99	10,789.12	3,555.35	3,575.52	18,555.82	36,476.81	49,543.80	30	176,627
Minnesota State Reformatory, St. Cloud, Minn.	\$220.19.....	13,036.72	17,255.91	8,319.02	3,694.50	3,862.06	14,824.76	30,700.34	47,957.25	32	355,2389
State Reform School, Boonville, Mo.	\$600.....	.....	9,300.00	4,649.03	1,482.48	1,791.37	18,588.68	26,481.56	35,841.56	18	358,4156
State Industrial School, Kearney, Nebr.	6 at \$800 each, 1 at \$600.....	.....	39,360.00	35,088.00	15,000.00	18,000.00	39,500.00	107,588.00	146,948.00	.....	268,1533
State Reform School, Jamesburg, N. J.	Male, \$480 each; female, \$300 each \$300.....	14,115.96	18,315.96	10,817.81	5,371.90	3,875.02	20,610.14	40,074.87	55,990.83	45	167,1368
State Industrial School for Girls, Trenton, N. J.	30.00 20.00 18.00	.....	3,984.84	1,806.83	(g)	749.77	6,590.39	8,316.16	12,301.00	11	164,0133
New York State Reformatory, Elmira, N. Y.	a 600.00 to 1,800.00	.....	38,265.27	54,533.44	23,046.10	16,849.66	50,871.04	145,300.21	183,565.48	88	152,463
House of Refuge, Randalls Island, N. Y.	Teachers from \$2.50 to \$5.00 a session. Supervisor of school \$1,000 and living.	.....	40,932.68	27,200.58	11,845.53	10,588.73	11,105.53	60,740.37	101,673.05	.....	203,3461
State Industrial School, Rochester, N. Y.	25 female at \$420	36,125.82	50,926.92	45,068.48	20,239.91	13,489.29	23,438.58	107,836.34	158,763.26	73	203,022
Catholic Protectory, Westchester, N. Y.	(c)	.....	61,735.77	168,737.50	11,687.69	4,291.31	85,396.70	270,113.20	331,848.97	124	124,3866
Cincinnati House of Refuge, Cincinnati, Ohio.	\$1,019.....	13,400.17	18,805.17	13,513.30	5,202.75	3,574.16	16,248.37	38,538.58	57,343.75	.....	188,0123
Girls' Industrial Home, Delaware, Ohio.	8 at \$300 .....	600.00	16,666.10	9,760.93	2,809.98	4,496.93	13,436.98	30,513.82	47,179.92	44	160,4759
Boys' Industrial School, Lancaster, Ohio.	12 female at \$40 .....	.....	24,158.33	34,100.00	(g)	6,352.90	33,459.32	73,912.82	98,071.15	.....	148,5911
Pennsylvania Industrial Reformatory, Huntingdon, Pa.	\$2,000.....	49,204.68	64,804.68	24,734.53	14,687.60	15,149.66	154,899.70	209,471.49	274,276.17	.....	342,7702
Pennsylvania Reform School, Morganza, Pa.	Male, \$650 each; female, \$420 each \$360.....	18,336.00	20,276.00	36,525.25	10,244.24	7,952.44	12,753.40	67,475.30	112,287.74	57	232,4798
House of Refuge, Philadelphia, Pa.	28,883.27	.....	42,698.27	31,655.29	5,486.66	9,107.76	58,000.61	104,910.32	147,603.50	101	201,0948
Oaklawn School for Girls, Howard, R. I.	(Female) \$300.....	.....	2,042.28	1,177.61	292.37	474.93	381.81	2,326.72	4,369.00	.....	150,6552
Sockanosset School for Boys, Howard, R. I.	(Female) \$300 .....	.....	12,066.44	7,508.40	3,947.03	4,563.83	10,234.26	26,253.52	38,319.96	26	224,0933
State Reform School, Plankinton, S. Dak.	1 female \$300.....	.....	5,000.00	7,000.00	(h)	1,300.00	.....	8,300.00	13,300.00	14	190.

EXHIBIT E.—Comparative statement of forty-seven representative institutions, District of Columbia. (Continued.)

Name and location of institution	Salaries of teachers	Amount paid other employees	Total salaries	Food, groceries, etc.	Clothing	Fuel and lights	Other expenses, maintenance, repairs	Total maintenance	Total expenses	Total cost of institution
House of Correction and Reformatory, Gatesville, Tex.	2 at \$360.....	\$4,200.00	\$6,810.00	.....	.....	.....	.....	\$7,500.00	\$14,310.00	22,141
Vermont Reformatory School, Vergennes, Vt.	3 at \$400, \$225, and \$200.....	3,005.44	5,809.44	\$2,778.77	\$802.50	\$1,637.50	\$3,814.15	11,223.10	14,032.54	182.30
Wisconsin Industrial School, Milwaukee, Wis.	2 at \$320, 4 at \$264.....	1,500.00	7,334.77	7,536.40	2,218.80	2,934.58	461.44	13,151.81	20,486.08	115,003
Wisconsin Industrial School for Boys, Waukesha, Wis.	3 male at \$480, 2 female at \$360, and 2 female at \$300.....	12,052.96	18,002.96	20,765.92	7,309.26	6,539.19	28,497.70	63,002.07	81,000.00	104,720
Total.....	.....	.....	924,272.60	896,845.28	252,135.92	243,040.71	905,832.17	2,423,171.49	3,332,980.53	193,173

NOTE.—Blank spaces indicate that the information could not be obtained. *a* Per annum. *b* And wife. *c* Members of Christian societies. *d* Estimated. *e* Under the act of Congress all the moneys derived from labor of inmates must be covered into the Treasury of the United States, one half to the credit of the United States and one half to the credit of the District of Columbia. Under this law \$2,717.64 was so deposited at the close of the fiscal year, making the actual cost to the United States and District of Columbia of maintaining the school, \$37,854.41; and the pro rata cost of each inmate, \$191.18 <sup>100</sup>/<sub>100</sub>. *f* Per month. *g* Made. *h* Clothing included under head of food.



EXHIBIT F.

HEALTH DEPARTMENT OF THE DISTRICT OF COLUMBIA,  
Washington, September 12, 1892.

SIR: I have the honor to inclose herewith copy of the letter of Prof. Richardson, chemist, giving his opinion as to the character of spring and well water at the Reform School. Nos. 609 and 610 refer to the water taken from your institution.

Very respectfully,

C. M. HAMMETT, M. D.,  
Health Officer.

The SUPERINTENDENT OF THE REFORM SCHOOL OF THE  
DISTRICT OF COLUMBIA.

[Inclosure.]

OFFICE OF THE ENGINEER COMMISSIONER,  
DISTRICT OF COLUMBIA,  
Washington, D. C., September 10, 1892.

HEALTH DEPARTMENT,  
District of Columbia:

GENTLEMEN: I have examined, at your written request, five specimens of water received from you yesterday and to-day, and numbered and described in the inclosed forms 606, 607, 608, 609, and 610, and find that the chemical analysis reveals nothing which would lead to the suspicion that the waters are contaminated.

Very respectfully, yours,

CLIFFORD RICHARDSON,  
Inspector of Asphalt and Cements.

EXHIBIT G.

COLONY OF METTRAY NEAR TOURS (INDRE-ET-LOIRE).

CONSTITUTION AND BY-LAWS OF THE PATERNAL SOCIETY.

[Recognized as an establishment of public utility by a decree of July 21, 1853.]

TITLE I.

ARTICLE 1. *Object of the society.*—The Paternal Society, which founded the agricultural Colony of Mettray in 1839, has for its object:

(1) To collect, support and educate in the Colony of Mettray young prisoners sentenced under articles 66 and 67 of the penal code confided to them in accordance with the ministerial instruction of December 3, 1832, and the law of August 5, 1850; to give to these children a moral and religious education as well as primary elementary instruction, to teach them a trade and to accustom them above all to agricultural employment.

(2) To exercise a benevolent care over these children when they leave the colony, to find places for them as soon as possible in the country with workmen or farmers, to watch over their conduct and to aid them with official patronage.

ARTICLE 2. The colony and its officers are at Mettray, near Tours, Department of Indre-et-Loire.

The headquarters of the society is in Paris.

TITLE II.

ART. 3. *Composition of the society.*—The society is composed of an unlimited number of members who are called founders and subscribers.

Every person is considered a founder who gives at one time the sum of 100 francs. Every person is considered a subscribing member who gives less than 100 but more than 10 francs.

Donations in kind are mentioned in the reports. Subscriptions are received as gratuities.

ART. 4. The names of founders are inscribed in the chapel of the colony.

## TITLE III.

ART. 5. *The council of administration.*—The society is governed by a council of administrators.

The council is composed of 20 members chosen from the founders and elected by them in a general assembly. The nomination is made on the majority of votes appearing by the first inspection and the relative majority on the second ballot.

The council is elected for twelve years; one quarter is renewed every three years on a triple list presented by the bureau.

The three first series to be renewed are selected by lot.

Members going out are re-eligible to office.

During the three years interval the places becoming vacant are filled provisionally until the meeting of the first general assembly by the council itself if they judge proper.

The nomination depends upon an absolute majority of those voting.

The members who compose the council are: The president, vice-president, general secretary, assistant secretary, treasurer, members, \* \* \* They hold their positions for twelve years, beginning from the day the present statutes go into effect, except as affected by partial renewal before mentioned.

ART. 6. The council meets every three months. It can be convoked on extraordinary occasions by the President.

ART. 7. \* \* \*

ART. 8. The council also appoints from its own members a commission of finance composed of five members of which the treasurer is one *ex officio*.

ART. 9. The bureau and commission of finance are named for three years.

ART. 10. The commission of finance is charged with verifying the accounts. They report each year to the Council of Administration the result of their examination. This report is printed and distributed to the founders.

ART. 11. The council of administration chooses the director of the colony and may dismiss him.

The election is made by the absolute majority; dismissal can only be done by a majority of three-fourths of the members present, unless this majority is less than a majority of the entire council, that is to say, eleven votes.

The chosen directors must be accepted by the Government according to Article 7 of the law of August 5, 1850.

The director of the colony is *ex officio* a member of the administrative council, and is not dependent upon reelection, which applies only to the twenty elected members.

The council can meet without requiring the presence of the director.

ART. 12. The services of the administrative counsel are entirely gratuitous. The director of the colony may receive a salary, which is fixed by the administration with the advice of the committee on finance.

ART. 13. The administrative council is the legal representative of the society.

It manages the funds and property of the society. It can buy, rent, exchange, and alienate property. It can borrow, lend, mortgage, and pledge the society to the full amount at their disposal. It can go into court either as plaintiff or defendant, can plead, and make settlements.

The director of the colony represents the administrative council in all judicial actions and has established his domicile in the colony of Mettray.

The administrative council may nevertheless delegate one of its members to act, either alone or jointly with the director of the colony, in exceptional cases. It can also delegate one or more of its members for a special inspection of the colony and its finances.

## TITLE IV.

ART. 14. *Correspondents and patrons.*—The administrative council, upon the advice of the director of the colony, may confer the title of patron and corresponding members upon those persons who wish to carry on the work of Mettray, and the same person can bear both titles. The patrons are the official guardians of the inmates for whom the society has found places after they have left the colony. They and the corresponding members are to carry out the instructions of the society. They correspond with the director of the colony and take up subscriptions, which are turned over to the society.

## TITLE V.

*General assembly.*—The general assembly of the society takes place every three years, for the election described in article 5, and whenever else the council deems necessary. Public notice is given eight days in advance of the meeting. At the triennial reunion a report is made of the moral and financial condition of the society.

## TITLE VI.

ART. 16. \* \* \*

## TITLE VII.

ART. 17. *General regulations.*—A report of the financial and moral condition of the society is made to the Government every year.

ART. 18. All details necessary to ensure the execution of the by-laws and the internal administration of the society are decided by the administrative council upon propositions submitted by the board and the directors.

ART. 19. No change in the present by-laws can be proposed to the competent authority except upon demand of the administrative council. And no change is final until authorized by superior authority.

The present by-laws were considered, modified and unanimously adopted at Paris January 31, 1882.

## INTERNAL REGULATIONS.

## TITLE I.

ART. 1. *Admission of colonists.*—The colony of Mettray, according to Article 1 of the by-laws of the Paternal Society, receives young persons to whom Articles 66 and 67 of the Penal Code apply. They are brought up according to the intention of the law, and are given moral and religious training, and primary elementary education. Those admitted to the colony and known as inmates of Mettray, upon leaving the colony, are as far as possible sent to the country on farms, and are under the care of the Paternal Society.

ART. 2. The foundation of the colony is for 550 inmates, but a greater number may be received by the system of outlying farms.

ART. 3. No one is admitted except on an order from the secretary of the interior.

ART. 4. Upon arrival each inmate's name is entered upon the register at the colony. He undergoes an interrogation which forms part of the report kept of each one, he is examined by the physician, who certifies as to his physical condition; he is bathed and clothed in the uniform of the colony, and put in a class according to his age, his strength, and his aptitude.

ART. 5. Grave misconduct and immorality are reported to the superior authority by which, if necessary, a return to the Central House is ordered, after which he can not return to the colony.

## TITLE II.

*Internal rules, measures of order and security, heads of families, assistants, and elder brothers.*

ART. 6. The internal discipline, the overseeing, and the education of the inmates are confided to men of tried morality, of whom some are from the preparatory school\* connected with the colony. Frequent inspections are made during the day. Rounds are made during the night, both inside and outside the yards and buildings. The dormitories and infirmary are always lit at night.

ART. 7. The colony is divided into families living in separate houses. Each family has its own flag. A family consists of forty children, divided into two sections. A special letter of the alphabet on the dress of each inmate, in addition to his own number, shows to what family he belongs. The general direction of the family is confided to an agent bearing the title of head of the family, who has an assistant head under his orders. The assistants are taken from the scholars in the preparatory school.\* These officers are aided in each section by one of the inmates called the elder brother, who is elected by a majority of secret votes in the family to which he belongs. He is elected for three months and is eligible for reelection. The director of the colony ratifies or annuls the choice of the family. The elder brother reports

\* The preparatory school, an indispensable adjunct of the colony, was founded to train zealous young men to serve first as foremen and overseers for the establishment at Mettray, and afterwards to assume the charge of similar institutions for orphans and foundlings.

Young men, at least 16 years of age, who are piously inspired to devote themselves to the care of the young, are admitted to it gratuitously.



violations of the rules, but can not inflict punishments. He wears a badge on his sleeve to distinguish him from his comrades who owe him obedience, and he receives a reward if his conduct is satisfactory. He carries the flag of the family on various occasions, and its honor is in a measure confided to him. The head of the family makes a daily report to the director upon the conduct of his children. The director alone inflicts punishments.

## TITLE III.

ART. 8. Domestic service, clothing.— \* \* \*

ART. 9. Bed linen.— \* \* \*

ART. 10. Food.—(1) Breakfast: 250 grams of bread. Soup is given in the morning as a reward to those who gave satisfaction by their work the preceding day.

(2) Dinner: Soup and vegetables, 250 grams of bread, 3 decilitres of liquid; three times a week, 150 grams of bread.

(3) Supper: Vegetable soup, 250 grams of bread, a half liter of liquid.

Each inmate receives 850 grams of bread a day, including that in the soup.

## TITLE IV.

ART. 11. *Work*.—The inmates are above all employed in agriculture, horticulture, and market-gardening. They learn the work of a farm, the care of horses and cattle, poultry yard, etc.

There are besides several workshops for the encouragement and development of different aptitudes, and to contribute directly by the work of the inmates themselves to the needs of the institution. The trades taught outside of agriculture are principally those most easily practiced in the country, such as joiner, wheelwright, carpenter, sabot-maker, blacksmith, tool-cutter for agricultural implements, horseshoer, masons, stonecutters, house-painters, tailors, shoemakers, and bakers.

The inmates are also employed in the bakery, the kitchen, and the infirmary. A shop in which sails can be made is open for children born in a seaport who generally have a decided vocation for the navy. They are drilled by an old sailor on a three-masted vessel given by the secretary of the navy.

In selecting employment of the children attention is paid—

- (1) To their strength, their health, and their natural aptitude.
- (2) To the place where they were brought up, either in the city or country.
- (3) To the position and occupation of their parents.
- (4) To the position they will occupy at the time of leaving the colony.

Work is suspended on Sundays and recognized holidays, except in cases of necessity, especially in the time of harvest.

*Division of the day*.—*Employment of time*.—The employment of time and division of the day are regulated so as to introduce the necessary variety in the exercises, to occupy the time of the inmates, and to prevent their escape from observation.

The hours of rising and retiring, work, meals, and all exercises, are made known by the sound of a gong. At the signal to rise the hammocks are vacated, the inmates dress, say prayers, and go by sections in order and in silence to the yards for their ablutions. The roll is called in each family, after which they proceed to the exercises and work assigned to them respectively.

At the signal to retire prayers are said, each one stands in front of his hammock, makes it up, undresses, putting his clothes in order for the next morning, and goes to bed.

Meals and lessons in class are preceded and followed by a prayer. In going from one place to another the inmates march silently in step under the lead of the head of the family or workshop or section.

## TITLE V.

ART. 13. *Agricultural instruction*.—The director of agriculture gives a course of practical and theoretical agriculture to the agricultural agent, the pupils of the preparatory school, and the inmates.

Once a week he takes the pupils to the fields to show them on the spot the practical application of each lesson.

The heads of the family of the farms are present at the different instructions and at an agricultural meeting which takes place at the end of each week, and at which each person is allowed to make any remarks.

The heads of the family of the farms keep an agricultural journal, in which they keep a record of the work of the inmates under their charge, and where they write their remarks upon this work and facts relating thereto coming under their observation.

ART 14. *Outlying farms.*—Besides their principal agricultural establishment, the colony possesses several farms. Each of these farms is lived on and worked by forty children. A head of a family directs and is morally responsible for it. He has under him a head farmer.

Field study is divided into as many sections as may be required by the nature of the work to be done. Each section has a head, who has charge as long as the work lasts. This head of a section is responsible for the special work of the detachment of which he has charge. He sees that while they are working in the fields the effects of the inmates are tolded and laid out in perfect order. He notifies the head workman of any violation of the rules. The head workmen verify the tasks performed during the day and the number employed. He also makes a report of the work and conduct of the inmates under him and this report is sent every day to the head of the family, who transmits it to the director.

The children at each farm are under the same discipline as those of the colony and are employed in the same manner.

*Indoor workshops.*—The indoor workshops are managed by head workmen, who are skilled laborers, who teach their trades according to the best known methods to the children.

#### GENERAL REGULATIONS.

*Change of workshops.*—The change of workshops can only be authorized by the director. The inmate who asks to be transferred finds it impossible unless he has done well in the shop he wishes to leave and has his name enrolled on the honor list. It is thus shown that fickleness and laziness are not the cause of the request for transfer.

#### TITLE VI.

ART. 17. *Instruction.*—The inmates receive primary and elementary instruction, moral and religious education, in conformity to the law of June 28, 1883, and agricultural instruction.

ART. 18. *Primary instruction.*—Moral and religious instruction, reading and writing, the elements of mental and written arithmetic, ordinary spelling, and the rules of French grammar, legal system of weights and measures. Some idea of geography, sacred history, and the principal events in the history of France are taught to the inmates. Lineal drawing is taught to those who need it to make them more skillful in their trades. Vocal music and instrumental music form part of the instruction given, but only by way of reward. In teaching vocal music, the method of B. Wilhem is followed. They are also taught the plain chant. Music lessons are given only twice a week. Elementary instruction is given daily, and is of obligation. The most intelligent pupils are chosen as monitors for their comrades. They form a separate class. The monitor pupils have a right to special privileges.

The instructor has every day a class for the pupils who drive the teams and can not assist at the regular classes; for those in the infirmary, not sick enough to be dispensed from all work; for those in the cells. Every month they meet in competition on the various subjects of instruction. To excite emulation places obtained in competition are put down on a special register and rewards are distributed to those who distinguish themselves by their progress and good behavior. Gymnastic exercises are considered as forming part of the instruction, and all the pupils take part in them according to their age and strength.

They are also taught how to manage the fire engine. The pupils are marched, under the charge of the head, to the neighborhood of a fire, either day or night. Those who are in punishment are deprived of helping others in this way.

*Agricultural teaching.*—The pupils receive from the heads of the families, on the ground, explanations as to the cultivation of the fields and the best manner of doing it. The heads of the family give a lesson in elementary agriculture twice a week to the most intelligent children in their families. By way of making the lesson easy it is given in questions and answers. The pupils thus selected attend twice a month an agricultural conference. The director of agriculture questions them and takes notes on their progress.

A plowing match takes place at the end of each year and the two best plowmen receive a reward.

#### TITLE VII.

ART. 21. *Rewards and punishments.*—The principal rewards are:

- (1) To be inscribed on the roll of honor after three months of good conduct.
- (2) To be nominated to the position of elder brother, head of section, and monitor.
- (3) To be placed in positions of trust. They are also given better food, but only to those who work. Presents suitable to their age and tastes are also distributed.



A monthly reward is given in money to the first five pupils in each shop. The monitor pupils receive special rewards. Besides the industrial rewards there are general rewards to families which are distinguished by their work and good conduct, and who have not been punished throughout the week.

The director alone inflicts punishments. No punishment is given at the time the fault is committed. The delinquent is put for the time being in a room by himself, called the hall of reflection. He has time to grow calm, and the person who witnessed the fault can recover his coolness. Inquiry is made as to all circumstances, and punishment awarded with discretion and a full knowledge of the case.

The punishments are:

- 1) A public or private reprimand.
- 2) He is not allowed to have his recreation.
- 3) Confined to the punishment quarter.
- 4) Standing a certain length of time in the punishment quarter.
- 5) Deprivation of positions of trust.
- 6) Loss of the grade of elder brother, or chief of section.
- 7) Name erased from the roll of honor.
- 8) A light or dark cell, sometimes with only bread and water.
- 9) The dungeon in case of insubordination.
- 10) Return to the Central House. This return is asked of the secretary of the interior in extremely grave cases, especially of immorality.\*

All the punishments are put down in the account of the pupil's deportment in the book of each family, on a punishment sheet attached to the report of each child. The children punished in the cells are frequently visited by the director, the chaplain, and the chief clerk, who takes the place of the absent director, by the heads of the family or by other persons or officers authorized to do so.

The instructor also visits the children and gives them private lessons. By the permission of the director those confined in the cells can be employed certain hours of the day in sawing and splitting wood used in the establishment, or in breaking stones for the road, or other work which can give them exercise.

Prayers are said aloud morning and evening by the head of the penitentiary and are answered by the children.

The superintendent of cells sleeps in that part of the building and sees that the rules are enforced. He sends to the director an account of the conduct of the children and of the visits made to them by the heads of families or other officers.

ART. 23. *Moral discipline of the colony.*—Every Sunday after service, and as often as is considered necessary, the employes and inmates are assembled together in the presence of the director. At this meeting the director reads aloud the report of each head of the family of the conduct of his children during the week; he praises and reproves them, distributes rewards, inflicts punishments, gives the news of those who have left, reads any of their letters which are interesting, and makes use of any circumstances and incidents that come before him to remind them of their duty, stimulate their zeal, or awaken in them good impulses.

At the beginning of the meeting the instructor reads compositions from the classes and the workshops, and at every quarterly meeting the director reads out at a similar meeting the premiums and rewards given to the best workers.

ART. 24. *Sunday.*—There is no work done on Sundays and holidays. To prevent idleness the children are employed in the gymnasium and in the fire-engine house drill on those days. They also march outside the grounds, headed by a band of music. In the summer they are taught swimming and how to help those in danger of drowning.

#### TITLE VIII.

##### *Medical attendance—Infirmary—Pharmacy—Attendance of Sisters of Charity.*

*Medical attendance.*—A doctor and a surgeon, regular physicians, have charge of the medical department. They examine the children on their arrival and write out a statement of their sanitary condition, and this statement is attached to the book of each child. They register an account of the nature and cause and development of every illness, also of the prescriptions given and medical observations made. They have charge of the pharmacy and all that concerns health and hygiene. They report the deaths, and the deceased children are buried in the cemetery attached to the colony, each in a separate grave. Members of the family to which the deceased belong attend the funeral. The physicians make an annual report of the sanitary condition of the colony during the past year.

ART. 25. *Infirmary.*—The infirmary is in charge of the Sisters of Charity. The sick child is taken to the infirmary by the head of the family and put under the care

\* Article 10 of the law of August 5, 1850, declares that young inmates who have been declared insubordinate shall be sent to the penal colonies established in Algeria.



of the sister in charge. At the foot of each bed is a notice with the name of the patient, his number, what family he belongs to, and the date of his entrance in the infirmary. A certificate of the nature of the illness and treatment pursued also is attached to his book. The sick and convalescent have a special playground and are not allowed to associate with the others. Every child in leaving the infirmary is taken to the head of his family, who comes for him and takes him home. Every day children who have slight maladies or injuries and whose wounds have to be dressed are taken to the infirmary by an elder brother, under the supervision of an agent.

*Pharmacy.*—The pharmacy is under the charge of one of the Sisters of Charity. She makes up under the doctor's direction any prescription which is harmless and which is usually made up in hospitals. Other prescriptions which require special knowledge are taken to the druggist. There is kept in the infirmary, in good order, a surgical box, in which everything necessary in cases of asphyxia or drowning is kept. This box is always taken when the children go swimming or bathing in summer.

ART. 28. The kitchen, the laundry, and the washhouse are also under the charge of the sisters.

#### TITLE IX.

ART. 29. *Visitors.*—Strangers are admitted to visit the colony. All visitors are required to put down in a book their names, avocation, and domicile. After seeing the register the director permits the visit.

The visitors are always accompanied by an officer. It is forbidden to speak to the inmates, send them money or letters, or anything whatever.

Offerings made by the visitors are put either in a box for that purpose or in the cash box of a responsible officer who gives a regular receipt for it. Visitors are allowed to write down any remarks that occur to them, and they are transmitted to the director.

ART. 30. *Parlor.*—The inmates are allowed to receive visitors from their families, unless there are special orders to the contrary.

Relatives are admitted to the parlor in the presence of an officer.

#### TITLE X.

ART. 31. *Patronage.*—According to the rules of the society, the colony continues its interest in the children after they leave Mettray. Whenever it is possible they are sent into the country to farmers; their career is watched, and they have the benefit of its official patronage. Every inmate on leaving Mettray at the time fixed by the sentence under which he was committed receives the following outfit: A pair of shoes; 3 unbleached cotton shirts; 2 cotton cravats; 3 cotton handkerchiefs; 2 pair socks; 2 pairs pantaloons, 1 of wool and 1 cottonade; 1 pair suspenders; 1 woolen waistcoat, with gray cotton sleeves; 2 blue gingham blouses; 1 black hat.

Every inmate who has behaved well receives, on leaving, a certificate of good conduct, which will secure him a place with a tradesman of his profession.

If not claimed by their family, or if the family are not considered desirable, the discharged inmate is taken care of by the colony. The director stipulates, if it can be done, that he should be apprenticed, and, if not, precautions are taken to see that the child is properly paid.

The corresponding members and patrons mentioned in the by-laws of the colony unite with the directors in carrying on this work. At least once a year a bulletin is issued to the authorities (that is, to all those who have charge of the former inmates or who are instrumental in getting them places), asking them certain questions, which they are requested to reply to, relative to their conduct and position. Those who go back to Paris are looked after by the general agent attached to the council of administration of the society, whose office is at Paris. The general agent receives from the colony any information which they can give him as to the character, past conduct, disposition, and resources of the person to be aided. He secures him a situation, visits him as soon as possible, personally or through a special agent, and gets persons interested in him who will act as guardians. He sends to the director all the facts which come under his observation. Those who are guilty a second time of the same faults are not entitled to the privilege of patronage. Nevertheless, if their conduct improves, and they persevere in their good resolutions, they can again have the assistance and protection that the colony gives its children.

#### TITLE XI.

ART. 32. *Financial aid for the discharged inmates.*—There is a sum of money put aside for the inmates who become destitute and to furnish them with necessary tools for the exercise of their trades.

The fines imposed by the director for all infringement of rules by the servants, officers, or agents in the discharge of their duty go to the fund for those out of work or who have no means of support. Those who are ill can be admitted free into the colony, but only temporarily. Any former inmate must bring a certificate stating that it is not through any fault of his own that he is without work. He takes his former place in the family and is subject to all the rules of the colony.

## TITLE XII.

ART. 33. *Association of Mettray*.—Any former inmate whose conduct for two years after leaving has been irreproachable and who is over twenty years of age can receive the aid of the association organized by the founders of the colony to perpetuate the work of Mettray. They receive the ring of the colony and a patent which they can present to the members of the association to demand aid and assistance.

## TITLE XIII.

ART. 34. *Administration*.—Each servant, officer, and employé is governed by rules relative to their duties and drawn up by the director.

ART. 35. Every morning the chief officers meet together in the director's room and report everything of interest to the colony. The director makes rules, assigns the work, gives instructions, decides questions brought before him, and the means to be adopted in the different bureaus.

ART. 36. Every day after sounding the gong the general superintendent announces the orders he has received from the director as to the disposition of work and order of the day.

ART. 37. Every Saturday the heads of families, the master workmen, and heads of different offices are assembled, a report is made of everything that takes place in the families and the workshops and offices during the week. They arrange the rewards and punishments, which are announced on Sunday, in the presence of all the colony, by the director.

ART. 38. Every infringement of the rules committed by the servants, officers, or agents in the discharge of their duties is punished by a fine imposed by the director.

ART. 39. *The fund for old age, for servants, employés, and agents*.—The fund for old age founded by the law of June, 1850, is provided by the paternal society for all agents of the colony. They contribute voluntarily to its support a twentieth part of their salaries every year.

ART. 40. To encourage them in so doing they are allowed every year by the administrator of the colony a sum which is divided among those who make the above-named contribution. This sum is placed in the treasury and adds so much to the amount withheld according to the rule of the colony.

ART. 41. *Library*.—There is established in the colony a library composed principally of educational, moral, and religious works and those on popular and agricultural subjects. It is opened for the use of officers, agents, and employés.

Books can not be taken out of the library without permission of the director.

The director can by way of recompense allow books to be loaned to such inmates as are distinguished by their intelligence and good conduct.

ART. 42. Extracts from these rules are posted up in the colony.

## EXHIBIT H.

## BY-LAWS AND RULES AND REGULATIONS OF THE REFORM SCHOOL OF THE DISTRICT OF COLUMBIA.

CHAPTER I.—*Its object, and the means to accomplish it.*

SEC. 1. The Reform School is established for one purpose, to wit, the reformation of the inmates detained therein.

SEC. 2. The means to be employed are instruction and labor, under thorough discipline, accompanied by rewards and punishments as may be deserved by the inmates.

SEC. 3. The instruction will embrace mental and physical culture, teaching and preparing the inmates, while in the institution, how to live after they leave it.

SEC. 4. The labor shall be such as suits the capacity and age of the inmates, respectively; it shall not be imposed as a punishment. The inmates shall be made to feel that they are taught to labor so that they may acquire regular habits, a love of



industry and aversion to idleness, and thus be fitted to gain a livelihood when they shall go out into the world.

SEC. 5. The discipline shall be that of the family, the school, workshop, and the farm. The inmates are to be watched over and treated as pupils and not guarded as prisoners or criminals, and there shall be no more restraint than shall be necessary to develop in them good and repress bad qualities. Self-instruction, self-desire to labor, and self-government shall be inculcated as the best culture as well as the most effective discipline.

SEC. 6. Every effort of the inmates towards self-improvement shall be encouraged and suitably rewarded.

SEC. 7. All grades are based on a term of two years' service. Badges are changed monthly at the close of the month. There are, in all, sixteen badges, starting with No. 16 on the day of arrival at the school. In addition to the badges are six grades, which with "honor" and "discharge" make twenty-four. For uniform good conduct and progress in educational requirements there may be allowed a commutation of time, marked by double promotions, as follows: For six continuous promotions there shall be one double promotion. For six further continuous promotions there shall be another double promotion. For continuous good conduct each of the grades, including "honor" and "discharge," shall be commuted by a double promotion—to be approved by the visiting committee. Six continuous promotions shall always secure one double promotion, and for an exceptionally good monthly record in conduct and study double promotions may be awarded in each of the grades, if approved by the visiting committee. No one can receive his "honor" badge, or be discharged as a regular "honor" boy, until he has earned all the badges and grades as prescribed.

SEC. 8. Badges shall be worn by the boys on their Sunday suits, according to their standing, as follows: For six continuous promotions a yellow cloth chevron, single; and for twelve continuous promotions a double chevron of same color, on left sleeve of jacket above the elbow. The sixth and fifth grades shall be shown by a bright-colored blue star; the fourth and third grades by a white star, and the second and first grades by a red star; the "honor" badge to be a rosette of ribbon, red, white, and blue. Boys who have earned and worn the yellow chevron will continue to wear it underneath their grade badge.

## CHAPTER II.—*The government.*

SEC. 1. The Board of Trustees, including the consulting members, shall exercise a frequent and wholesome supervision over the school and see that its objects and purposes are properly carried out. They shall hold regular meetings on the second Monday of every month, the meetings of March, June, September, and December to be invariably held at the institution, when the board will attend exercises of the school and witness the exhibition of their proficiency; but special meetings may be called by the president at any time and at any place, or upon the request of two members it shall be obligatory upon him to do so.

SEC. 2. At the regular meeting held in the month of October in each year the annual report of the superintendent and that of the board, the latter to be prepared by the president, shall be submitted for approval and transmission to the Attorney-General of the United States and to the Commissioners of the District of Columbia, respectively.

SEC. 3. Nominations and elections of officers and employes for the Reform School shall be made by the board of trustees. The president of the board, or in his absence the vice-president, may temporarily appoint officers or employes when their services are needed, but such appointments shall continue only until the next meeting of the board, and no officer or employe shall enter upon duty until he or she has received an appointment and has taken the oath of office.

SEC. 4. Removals or dismissals of officers or employees shall be made by the board. The superintendent shall have power to suspend any officer or employee for cause, until the matter can be laid before the board. If the occasion requires he shall have power to compel the suspended party to immediately leave the school grounds, and to so remain until duly restored by action of the board.

### *The board of trustees.*

SEC. 5. The election of president, vice-president, and secretary shall be held at the regular meeting in December in each year.

SEC. 6. In the absence of the president and vice-president, the board shall designate some other member who shall act as president *pro tempore*.



*Secretary.*

SEC. 7. The secretary shall keep an accurate record of the proceedings in a book to be provided for that purpose, and shall give written notice to each trustee of the time and place of all meetings of the board.

*Treasurer.*

SEC. 8. The treasurer shall be elected by the board of trustees and perform such duties as are defined by acts of Congress. He shall hold his office during the pleasure of the board, and give bond in the sum of \$20,000, or more, as the First Comptroller of the United States Treasury shall direct, for the faithful performance of his trust.

The treasurer shall, twice a month, or oftener, as the board may direct, make report to the president of the board of balances in his hands, which the president shall have verified.

*Standing committees.*

SEC. 9. There shall be an executive, a finance, and a building committee to be appointed by the president of the board, of the first two of which the president shall be chairman *ex officio*.

SEC. 10. It shall be the duty of the executive committee to attend to all matters relating to the government and operations of the school, and, in concert with the superintendent, provide for employing the boys in farming, gardening, and mechanical industries. They shall also advise and act with the superintendent in purchasing and disposing of any live stock, horses, wagons, carriages, and materials to be worked by the boys, as well as other products of their labor. All matters not properly belonging to the building or finance committees shall fall under the charge of this committee.

SEC. 11. It shall be the duty of the finance committee to pass upon all accounts of the institution monthly, and, if found correct, to approve the same. They shall approve all requisitions for money appropriated by Congress payable to the treasurer of the board.

SEC. 12. It shall be the duty of the building committee to supervise the erection of buildings, repairs and alterations, to supervise the purchase of all necessary materials, in concert with such officers as may be duly authorized; and they shall generally give such attention and do such acts in reference to building and repairing buildings as may be required for the welfare of the school.

*Visiting committee.*

SEC. 13. At the beginning of each year there shall be designated by the president of the board a visiting committee of two members for each month of the ensuing year, such month to date from the meeting of the board. They shall be selected in alphabetical order, and so arranged that the first member of the committee shall be dropped at the next regular meeting of the board. The member of the committee serving his second month shall be chairman of the committee, the chairman to be personally charged with the duty of making a thorough inspection of the school, in all its departments, in the month to which he is assigned, the results thereof to be entered in the book prepared for that purpose, or in writing; said book to be kept at the school and submitted by the superintendent to the board at each regular meeting.

No inspection made on Sunday will be considered as a fulfillment of duty, and no verbal report will be accepted unless it be supplementary to a written report.

The visiting committee shall, before the meeting of the board each month, personally examine the boys who have reached the "honor" and "discharge" grades, and report the result of their examinations to the board.

CHAPTER III.—*Duties of officers.*

SECTION 1. The superintendent shall reside at the school, and shall devote all his time to the interests of the institution. He shall be the superior officer of the school; have the general charge of the inmates and business of the institution, and present to the board, at each regular meeting, a clear record of the business transacted during the month.

He shall report monthly all money received by him and pay the same over to the treasurer of the board.

He shall at the close of each month make a report of supplies, showing, first, the

balance brought from last month; second, supplies purchased and supplies received from the farm; third, balance of each on hand at the close of the month, and, fourth, the difference, showing the amount used during the month.

He shall see that the officers and employees are punctual and faithful in the discharge of their respective duties, and that the regulations and by-laws are observed. He shall also keep accurate and detailed accounts of all purchases made by him, moneys paid out, articles sold, and moneys received, and he shall also make such reports as are required by the seventh section of the act of Congress approved May 3, 1876.

Fire escapes shall be under the supervision of the superintendent or his assistant, who shall see that the buckets are always full of water, and the apparatus and escapes kept in good order, ready for immediate use; and at each regular meeting of the board the superintendent will report the conditions of all things used to protect the institution against danger by fire.

SEC. 2. The assistant superintendent shall be the officer in charge in the absence of the superintendent. He shall have special oversight of all detailed help, whether permanent or otherwise, and take personal charge of the boys' dining room during meal hours.

He shall obtain from the farmer such products of the farm as the superintendent may direct for use of the institution, keep an account of the same, and see that it is delivered at the proper time and in good condition to persons authorized to receive it.

He shall also assist the superintendent in the clerical work of his office, when so required, and devote all his time to the interests and work of the institution.

The assistant superintendent shall, under the general direction of the superintendent, have special charge of the farm, garden, barn, and stock; and it shall be his duty to make a thorough inspection of all the premises at least once a week, and at the end of every month submit a report, in writing, to the superintendent, who will submit the same to the board of trustees at their regular monthly meeting, with such suggestions and recommendations as he may see proper.

SEC. 3. There shall be two officers in charge of each family of boys, fully qualified to teach the ordinary English branches. They shall be known as first and second officers of the family. One or both of these officers shall be present with the boys at all times, and have charge of them in all things; they shall instruct them in such branches of education as may be directed by the board of trustees and in the arrangement and classification of the students shall follow the general direction of the superintendent; they shall strive to inspire the boys with a love of study, and teach them to justly estimate the value of a sound practical education, and shall make an effort, by precept and example, to impress upon their minds the importance of good order, self-government, and purity of body and mind.

The first officer shall be held responsible for the general discipline and conduct of the family, and for the safety, care, and preservation of all furniture, books, and valuables belonging to the respective rooms or buildings, and by strict personal examination see that no injury or waste is permitted. He will be responsible also, in connection with the matron of the family, for the cleanliness of the schoolroom, living rooms, dormitories, wash rooms, closets, together with the yard and all immediate surroundings.

The second officer will be held to the same responsibility when in charge, and in all ordinary duty will be expected to assume an equal share. They will teach proper manners for the table, good order for the dormitories, and politeness toward each other. Each officer will pass to his table with his class at meals, and see that all are properly seated and their necessary wants supplied.

Officers of families shall lead their boys in saying grace before each meal, and shall also take charge of the morning and evening devotions.

They shall spend a portion of each evening in moral review of their respective families, at which time a record of the conduct of each youth shall be made in a book for that purpose. This book shall be the basis upon which the standing of every boy shall be determined.

Officers of families shall go to the field with their respective classes to perform such work as may be designated by the superintendent. The work shall be so arranged, if possible, that all the older boys will get a practical knowledge of farming and gardening.

The superintendent shall not recommend the discharge of any boy who has not learned to read and write and make calculations in the four rules of arithmetic—of addition, subtraction, multiplication, and division—and committed to memory the ten commandments, unless he is found incapable of meeting these requirements, the fact to be certified in writing by the teacher and superintendent stating wherein the defect lies.

SEC. 4. The matron shall have the general charge and supervision of all the domestic arrangements of the institution. The sewing room, laundry, and hospital shall be conducted under her direction, and she shall see that cleanliness, order, and



propriety are maintained in these departments; that all female assistants are diligent and faithful in the discharge of their appropriate duties, discreet in their deportment, and strict in the observance of all the rules of the institution, and shall report to the superintendent any remissness that may come to her knowledge. She shall see that the sick receive proper attention, and have a maternal regard for the health and physical welfare of all the boys. She shall see that there is no unnecessary waste in the kitchen department, and that a sufficient quantity of clean and well-cooked food is furnished for the tables at each meal and served in a careful manner. She shall also see that the clothing of the boys is kept in a tidy and neat condition.

In case of the temporary absence of the matron, her duties, for the time being, may be assigned to another by an order of the superintendent, approved by the president of the board.

SEC. 5. The florist, under the general direction of the superintendent, shall have charge of the greenhouses and lawns, and be responsible for their care and condition. He shall, at the end of every month, make a report in writing to the superintendent, setting forth the work done, the number of boys employed, and the time of each, and such other matters relating to his special work and duties as he may deem proper, and the superintendent shall submit the same to the Board of Trustees at their regular monthly meeting, with such additional suggestions and recommendations as he may deem necessary.

SEC. 6. The night watchman assigned to each family shall watch over the boys from the time they retire until they rise in the morning. At the first bell signal they shall cause the boys to rise, assist the officer in charge to conduct them to the wash room and prepare for breakfast. Any case of disorderly conduct or sickness during the night shall be immediately reported to the superintendent or his assistant.

They shall also perform any other duties assigned them by the superintendent.

The outside or general watchman shall perform a regular patrol through and around the buildings during the night, in which he shall exercise due vigilance to prevent escapes and to discover and prevent danger from fire. He will see that no intruders or stragglers are permitted on the grounds, and will make report to the superintendent of any breach of the rules or marked irregularities that may come under his notice.

SEC. 7. Resignations of all officers or assistants at the institution shall be tendered in writing, and shall not take effect until thirty days after being presented, except with the consent of the board or executive committee. Should any officer or assistant leave abruptly and without such consent, the same shall forfeit any compensation due him at such time.

SEC. 8. It shall be the duty of the officers and assistants to remain constantly at the institution, unless leave of absence is granted by the superintendent, but no leave will be granted for more than a few days, unless authorized by the executive committee or the president of the board. It is imperative that all persons absent under this rule shall return promptly at the time designated.

SEC. 9. Subordinate officers, in addition to their specific duties, shall aid the superintendent in preserving order and quiet among the inmates, in guarding against escapes and generally maintaining the rules and discipline of the institution. They shall also perform such other service, from time to time, as the superintendent may require.

#### CHAPTER IV.—General regulations.

SECTION 1. Punishment shall never be imposed under the excitement of the moment. It may be inflicted by the deprivation of amusements or recreation; by withholding some favorite article of food, or by substituting bread and water for the regular meal; by loss of rank or standing in the class; by the performance of some irksome duty; by solitary confinement for a limited period, or in extreme cases, by the infliction of moderate corporal punishment.

In all cases care should be taken to impress the delinquents with the conviction that the object in administering punishment is to subdue their vicious passions, to promote their welfare individually, to secure the good of the institution, and at the same time to convince them beyond a doubt that discipline and good order will be maintained at all hazards. For all minor offenses and indiscretions gentle admonition and reproof should be adopted; but any officer or assistant having charge of boys may use all judicious force necessary to repress any violent or obstinate resistance to his orders, and in all such cases the offender shall be confined in the lock-up or otherwise secured and the fact reported to the superintendent, who shall cause to be kept a record of all corporal punishments and cases of solitary confinement, and submit the same to the board at each regular meeting.

SEC. 2. In cases of attempt at escape it shall be the duty of those employed in the



institution, under the direction of the superintendent, to assist in their recapture, and they shall have full power to use any and all proper means necessary to retake such fugitives.

Should recapture fail, then the superintendent may place the proper process in the hands of some constable or police officer, and offer a suitable reward, not to exceed \$25, for the capture of the boy, upon approval of the president.

Any attempt to escape may wipe out all merit marks due such fugitive, and he may, when recaptured, be degraded to class sixteen, and he shall also be liable to such punishment as the superintendent may direct, which may extend to solitary confinement for one week.

SEC. 3. When a boy shall be discharged, upon having gained his honors, he shall be entitled to and receive from the superintendent a new suit of clothes, and, if the board so orders, a sum not to exceed \$10, and shall give to the superintendent a receipt for the money, which shall be his sufficient voucher to the treasurer for the payment thereof.

SEC. 4. Visitors shall at all reasonable hours be welcome to the Reform School, under such regulations as the board may prescribe and on such days as the board may direct. And officers and employes of the institution who may have visitors in charge will not allow them to stroll over the grounds or through the buildings unattended; nor to converse with inmates, unless by special permission of the superintendent.

Parents or friends of the inmates of the institution will be permitted to visit the boys on visiting days, between the hours of 12 m. and 3 p. m.

Officers in charge of families especially, and all others employed upon the premises and occupying apartments, will be expected to practice a judicious economy in the use of fuel and gas, and to see that no waste is permitted in either. The doors of the main building will be closed at 10, and all lights must be extinguished before 11 o'clock p. m., except in cases of sickness, or in dormitories, or in halls, and places where absolutely required.

The clothing of the inmates shall be comfortable, according to the season, and shall be well made and mended as often as needed. And it shall be the duty of the first officer in charge of each family to make weekly inspections, in order to note conditions of clothing and make report to the superintendent concerning the same. He shall also report promptly any cases of sickness or severe indisposition of boys in his family, that medicine or medical aid may be supplied.

All persons employed at the institution shall attend to the daily devotional exercises when practicable, and shall also attend all religious exercises on the Sabbath, unless excused by the superintendent.

Officers in charge of families will be present at the hour designated to conduct the Sabbath-school exercises, or assist in the same, unless excused by the superintendent.

No visitors will be received on Sunday other than those who may wish to attend the regular chapel services, and it is expected that such persons will not remain upon the premises after these exercises have been concluded, unless by special invitation of a member of the board of trustees or of the superintendent.

No species of gambling nor promiscuous card playing will be permitted in or about the buildings, nor will spirituous liquors of any kind be kept or used by any officer or employe except by order of the attending physician; neither will smoking be allowed, either on the grounds or in the presence of inmates.

Signals for meals, and all others given in the time schedule, will be carefully noted and promptly observed by all employed at the institution. The clock in the superintendent's office will be the standard of time, and all bell signals will be regulated thereby. No officer will retire for the night until assured that everything is quiet and orderly throughout the institution.

Officers and employes, when on duty, will avoid conversations with each other, except on official business, giving their whole time and attention to the work in hand, and all public expressions of opinions, or discussions about the affairs of the school or of personal grievances will be avoided. The same care should be observed also in speaking of the escape or capture of inmates, so that no information of this kind be given them, either directly or indirectly, from official sources.

Officers and employes are not allowed to read books or papers while on duty and during business hours, and when one only is in charge of a family or detail, special vigilance is enjoined that inmates may be kept well together and under no circumstances permitted to stray out of sight or hearing.

All who may have charge of labor details will give special attention as the work progresses; see that boys are properly employed, and that the tools in use are handled with care and returned to their places when no longer required.

Strict discipline must be maintained by the officer in charge, when the line is called, and every inmate will be required to respond promptly to such call. To refuse obedience will be considered a grave offense against rules and will not be permitted under any circumstances. Extreme cases will be reported by the officer in charge to the superintendent.

Officers having inmates of their families temporarily confined in the lock-up in the main building will visit them daily and see that they are supplied at regular intervals with such food and other requisites as are usual in ordinary discipline in these apartments, or as may be directed in special cases by the superintendent.

Officers will be careful when extending invitations to personal friends to visit them at the institution that they are not made of too frequent occurrence. It will be understood also that such visitors will be received only after consulting the superintendent.

Officers or employes having charge of inmates during play hours will see that a kindly spirit is preserved among them. They must not be permitted to use violence towards each other, or to willfully injure their clothing or to mark or deface the buildings, fixtures, or furniture.

Officers should be frank and candid in all their dealings with inmates intrusted to their care. Always ready to hear their respectful complaints, giving them sympathy and encouragement in all their childish difficulties, and, whenever necessary, patiently investigate all cases of disputes and misdemeanors, and use every means possible to arrive at conclusions just and equitable.

Money or tobacco will not be allowed or furnished the inmates, nor shall articles of any kind be given to or purchased for them, or messages be carried to and from their friends, without permission from the superintendent. And under no pretext whatever will they be permitted to leave the premises unless in the care of some responsible person and under the same authority.

Every inmate of the school will be required, when in health, to employ a portion of each day at some kind of manual labor, and none will be excused or detained from regular work or from school sessions or from chapel service without permission from the superintendent. Under proper restrictions, innocent games and amusements may be indulged in by inmates during regular hours for play and recreation, but the use of profane or indecent language or the reading of immoral books and papers, and all other disorderly conduct are strictly prohibited; and this rule will apply to and be obligatory upon all persons connected with the institution.

Every inmate, whether in family or on special detail, shall be under continuous care of some responsible person unless otherwise ordered, and their safe-keeping will depend upon such person until returned to their proper place or intrusted to the care of another person duly authorized to receive and take charge of them. All persons who have charge of house details are especially enjoined as to the requirements of this rule.

It is not intended that the superintendent will interfere with the social relations of officers or employes, or seek to control, in any way, their personal affairs, but should they so far forget their official duty as to permit such matters to interfere with the work of the institution, and do not of themselves arrange them promptly, the superintendent will take the responsibility of deciding between them, and his decision must be accepted as final.

All complaints should be made in person or in writing to the superintendent, who will always give them respectful attention; and when made in writing, if so requested, he will refer them officially to the board of trustees for final action.

Officers will not be expected to perform any duty inconsistent with those regularly assigned them. Special duties may arise at times when they become merged in the double relation of family and school which no printed laws can clearly indicate or provide for. It is expected, therefore, that all employed in the institution will conform their actions to the spirit as well as to the letter of the rules and regulations, and hold themselves in readiness at all times for any emergency, and by constant acts of accommodation, by firmness and kindness, aid not only in sustaining the general management, but in advancing the well-being and reformation of the boys.

#### CHAPTER V.—*Order of business.*

1. Reading of minutes, the trustees and secretary of the board alone being present.
2. Report of the superintendent, to be read by the secretary, the superintendent not being present.
3. Reports of committees.
4. Unfinished business.
5. New business.

These by-laws may be altered, amended, or repealed at any regular meeting of the board.



## EXHIBIT I.

## LAWS ESTABLISHING AND GOVERNING THE INSTITUTION.

## AN ACT to establish in the District of Columbia a house of correction for boys.

*Be it enacted, etc.,* That there shall be established in the District of Columbia, on the tract of land known as the Government farm, a fit and convenient house of correction, suitably and efficiently ventilated, with convenient yards, workshops, and other suitable accommodations adjoining or appurtenant thereto, for the safe-keeping, correction, governing, and employing of offenders legally committed thereto by authority of the courts and magistrates of the District of Columbia: *Provided*, That the building already erected on that land for the purpose of establishing a similar institution, together with all the other property there collected for the same purpose, shall be transferred to the trustees appointed according to the provisions of this act, at a cost not exceeding one thousand five hundred dollars.

SEC. 2. That the government of said institution shall be vested in a board of seven trustees, to be appointed and commissioned by the President of the United States, one of whom shall be nominated for appointment by the mayor of Washington, one by the mayor of Georgetown, one by the levy court of the county of Washington, and four by the Secretary of the Interior; and no trustee shall receive compensation for his services, but each trustee shall be allowed the amount of expenses necessarily incurred in the discharge of the duties of his office. The term of office of the said trustees shall be three years; but on the first appointment of the board of trustees two of the members shall be appointed for one year, two for two years, and three for three years, to be determined by the President.

SEC. 3. That the said board of trustees shall be a corporation, by the name of the Trustees of the House of Correction for the District of Columbia, for the purpose of taking and holding, in trust, whatever property may be conveyed, devised, donated, or bequeathed for the benefit of said institution, with all the power necessary to carry this purpose into effect.

SEC. 4. That it shall be the duty of the said board of trustees to take charge of the general interests of the institution; they may appoint a superintendent, a steward, a teacher or teachers, and such other officers as may be found necessary, and may be approved by the Secretary of the Interior; they may fix the salaries of said officers, subject to the approval of the Secretary of the Interior; they may prepare such by-laws as may be necessary to regulate and direct the management of the institution, which, however, shall not be valid until approved by the Secretary of the Interior; and to exercise a vigilant supervision over the institution, its officers, and its inmates.

SEC. 5. That before entering upon the duties of his office the superintendent shall give bond to the trustees, with sureties to be approved by the board of trustees and by the Secretary of the Interior, in the sum of three thousand dollars, conditioned that he shall faithfully account for all money received by him and faithfully perform all the duties incumbent on him as superintendent of said house of correction.

SEC. 6. That a treasurer of the institution shall be appointed by the board of trustees, subject to the approval of the Secretary of the Interior, who shall, before entering upon the duties of his office, give a bond to the trustees, with sureties to be approved by the board of trustees and by the Secretary of the Interior in the sum of five thousand dollars, conditioned that he shall faithfully account for all the money received by him as treasurer; and it shall be his duty to keep a clear and full record of his accounts as treasurer, and report an abstract of the same to the chairman of the board of trustees once in every two months.

SEC. 7. That, as soon after the appointment as possible, the board of trustees shall take measures to have the land and buildings designated suitably prepared for the use of said house of correction, and as soon as the buildings and premises are prepared for occupancy the trustees shall give notice to the proper authorities and courts of the cities of Washington and Georgetown and of the county of Washington that the house of correction is ready to receive inmates.

SEC. 8. That when any boy under the age of 14 years is found guilty in a court in the District of Columbia of any crime punishable by imprisonment other than imprisonment for life, he shall be committed to the said house of correction, and there held in custody of the superintendent for the term of his sentence; and when any boy over fourteen and under sixteen years of age shall be found guilty in a court of the District of Columbia of any crime punishable by imprisonment other than imprisonment for life, it shall be the duty of the court trying the case to consider carefully and decide whether he is or is not a fit subject for the house of correction and make its sentence accord with its decision of this question.

SEC. 9. That the superintendent shall reside at the institution constantly, and that he, with such subordinate officers as may be appointed in accordance with the



fourth section of this act, shall have the charge and custody of the boys; shall govern them in accordance with such rules and regulations as the board of trustees may prescribe in its by-laws; shall employ them in agricultural, mechanical, or other labor; shall give them instruction in reading, writing, arithmetic, geography, and such other studies, and such arts and trades as the trustees may direct, and shall employ such methods of discipline as will, as far as possible, reform their characters, preserve their health, promote regular improvement in their studies, trades, and employments, and secure in them fixed habits of religion, morality, and industry.

SEC. 10. That the superintendent shall have charge of the lands, buildings, furniture, tools, implements, stock, provisions, and every other species of property pertaining to the institution, within the precincts thereof; and he shall keep, in suitable books, regular and complete accounts of all his receipts and expenditures, and of all the property intrusted to him, so as to show clearly the income and expenses of the institution; and he shall account to the treasurer, in such manner as the trustees may prescribe, for all the money received by him from the proceeds of the institution or otherwise; and he shall keep a register of the names and ages of all boys committed to the institution, with the dates of their admission and discharge, and such particulars of their history before and after leaving the institution as he can obtain. His books and all documents relating to the house of correction shall, at all times, be open to the inspection of the trustees, who shall once or more in every three months carefully examine his accounts and the vouchers and documents connected therewith, and make a record of the result of such examination.

SEC. 11. That all contracts on account of the institution shall be made by the superintendent, and, when approved by the trustees, if their by-laws shall require their approval, shall be binding in law, and the superintendent, or his successor, may sue or be sued thereon to final judgment and execution; and no suit shall abate by reason of the office of superintendent become vacant during the pendency of the suit, but any successor in the office shall assume the prosecution or defense of any pending suit, and continue the prosecution or defense until such suit shall be concluded.

SEC. 12. That one or more of the trustees shall visit the said house of correction once at least in every two weeks, at which time the condition of the same shall be carefully examined and the register inspected; a record of the visit shall be kept in the books of the superintendent; once in every three months the institution shall be thoroughly examined in all its departments by not less than three of the trustees, and a report of such examination shall be made to the board; and an abstract of the reports, together with full annual reports of the superintendent and the treasurer, shall be presented to the Secretary of the Interior on or before the fifteenth day of November in each year.

SEC. 13. That when a boy shall be committed to the said house of correction, the city in which he has his residence at the time of such commitment, or, if his residence was within the county of Washington, and not within the city of Washington or the city of Georgetown, then the county of Washington shall pay to the treasurer of the house of correction fifty cents a week while he remains therein; the payments shall be made quarterly on the first days of January, April, July, and October; and any sum so paid may be recovered by such city or county of any parent, kindred, or guardian liable by law to maintain him.

SEC. 14. That for the purpose of securing a transfer to the building and other property to the trustees, preparing the premises and building for occupancy, and for the payment of other necessary expenses, there is hereby appropriated, out of any money in the Treasury not otherwise appropriated, the sum of twelve thousand dollars, to be paid only on the order of the Secretary of the Interior: *Provided*, That six thousand dollars of said appropriation is hereby declared to be the sum that shall be assessed and paid by the cities of Washington and Georgetown, and the county of Washington; and it shall be the duty of the proper authorities of the city of Washington to raise, by taxation or otherwise, and pay into the Treasury of the United States, at or before the time when the premises shall be ready for occupancy by the house of correction, the sum of four thousand five hundred dollars; and it shall be the duty of the proper authorities of the city of Georgetown to raise and pay in like manner the sum of one thousand dollars; and it shall be the duty of the proper authorities of the county of Washington to raise and pay in like manner the sum of five hundred dollars; and in case of default of such payment into the Treasury of the United States by either of said cities or by the said county of Washington, the party so making default shall be liable to summary proceedings before the supreme court of the District of Columbia, at the instance of the United States attorney for said District, to enforce the same, with interest thereon after the date of default.

SEC. 15. That this act shall take effect from the date of its passage.

Approved, July 25, 1866.

AN ACT to amend an act entitled "An act to establish in the District of Columbia a house of correction for boys," approved July twenty-five, eighteen hundred and sixty-six.

*Be it enacted, etc.,* That the board of trustees of the house of correction, which shall hereafter be known and designated as the Reform School of the District of Columbia, may, at their discretion receive, take, and keep in their exclusive care, control, and custody: First. Any boys under the age of sixteen years who shall or may be liable to punishment by imprisonment under any existing law of the District of Columbia, or any law that may be enacted and in force in said District. Second. Any boy under sixteen years of age, with the consent of his parent or guardian, against whom any charge of committing any crime or misdemeanor shall have been made, the punishment of which, on conviction, would be confinement in jail or prison. Third. Any boy under sixteen years of age who is destitute of a suitable home and adequate means of obtaining an honest living, or who is in danger of being brought up, or is brought up, to lead an idle or vicious life. Fourth. Any boy under sixteen years of age who is incorrigible, or habitually disregards the commands of his parents, father or mother, or guardians; or who resorts to immoral places or practices; or who neglects or refuses, at the request or command of his parents, father or mother, or guardian, to perform labor suitable to his years and conditions, or to attend school.

SEC. 2. That whenever any boy under the age of sixteen years shall be brought before any court of record of the District of Columbia, or any judge of such court, and shall be convicted of any crime or misdemeanor punishable by imprisonment, other than imprisonment for life, such court or judge, in lieu of sentencing such boy to imprisonment in the county jail, may, with the consent of such boy or his parent or guardian, suspend the sentence of punishment in the case, and commit the said boy to the care, control, and custody of the said trustees, to be taken to the said Reform School, to remain until he shall arrive at the age of twenty-one years, unless sooner discharged by the board of trustees. And in all cases where a boy, under the age of sixteen years, shall be brought before any court or judge upon the charge of crime or misdemeanor, when the accusation against him is deemed supported by evidence sufficient to put him on trial, such court or judge should have full power to stay all proceedings in the case, and to commit him, in like manner, for such period as such court or judge may determine, but not less than six months.

SEC. 3. That the mayors of the cities of Washington and Georgetown, and the president of the levy court of the District of Columbia, respectively, shall have full power to commit to the care, control, and custody of the board of trustees of said Reform School, with the consent, and at the proper expense, of his parent or guardian, for such term as the board of trustees may determine, any boy such as is described in the third and fourth clauses of section one of this act. And the members of the said board of trustees shall also, individually, have the same power as is herein given to the mayors of Washington and Georgetown and the president of the levy court.

SEC. 4. That the thirteenth section of the act above mentioned be amended by inserting "a sum not exceeding one dollar and a half per week," in place of the words "fifty cents."

SEC. 5. That in case any boy shall be committed to the care and control of the board of trustees, for the benefits of the Reform School, by either of the mayors aforesaid, the president of the levy court, or either of the trustees, as before provided, the said board of trustees may, if they deem it proper, require security to be given to them by the parent or guardian of any boy so committed for the payment of the expense of maintaining such boy in the said school for such period as he may remain there. And in all cases a statement of the age of the boy committed to the care of the board of trustees, together with the reason for such commitment, shall be furnished at the time of the commitment of each boy, to be delivered to the said board; and until such statement shall be so delivered the trustees may decline to receive such boy. No commitment shall remain in force longer than until the committed shall have become fully reformed, nor after he shall have attained the age of twenty-one years. But the said board shall have power to discharge any boy from their custody, by an order duly entered upon their records, whenever they shall deem the object of committing him fully attained. The trustees shall also have full power to place any boy, committed as herein described, during his minority, at such employment for or on account of said school of reform or otherwise, and cause him to be instructed in such branches of useful knowledge as may be suitable to his years and capacity, and as they, the said trustees, may see fit; and they may, with the consent of any such boy, bind him out as an apprentice during his minority to learn such proper trade and employment as in their judgment will be most conducive to his reformation and amendment, and as will tend to his future benefit; and the said trustees shall, for such purpose, have power to appoint a committee of one or more of their number with power to execute and deliver, on behalf of the said board of trustees, indentures of apprenticeship for any boy whom they may deem a proper person for an apprentice, and such



indentures of apprenticeship for any boy whom they may deem a proper person for an apprentice shall have the same force and effect as other indentures of apprenticeship under the laws of the District of Columbia, and be filed and kept among the records and in the office of the said Reform School, and it shall not be necessary to record or file them elsewhere.

SEC. 6. That the Secretary of the Interior shall cause so much of the tract of land known as the Government farm, in the District of Columbia, as may not be deemed necessary for the use of the aqueduct to be set off, by metes and bounds, to the board of trustees of the school of reform, in accordance with the provisions of the first section of the act of July twenty-fifth, eighteen hundred and sixty-six, of which this is an amendment; and thereupon the said trustees shall have exclusive possession and control of such portion as shall be thus set off to them.

Approved May 6, 1870.

---

AN ACT transferring certain powers and duties to the Department of Justice.

*Be it enacted, etc.,* That all and singular the powers conferred and duties enjoined by existing laws upon the Secretary of the Interior, relating to the imprisonment or discharge of convicted offenders against the laws of the United States, or to the Reform School and jail in the District of Columbia, be, and the same are hereby, transferred to the Department of Justice.

Approved March 5, 1872.

---

AN ACT relating to the Reform School of the District of Columbia.

*Be it enacted, etc.,* That the board of trustees of the Reform School of the District of Columbia shall cause monthly accounts to be rendered to the proper accounting officers of the Territory of the District of Columbia for the expenses of such boys as have been sent to the said school by the proper authorities from the cities of Washington and Georgetown and the county of Washington, and for which said cities and county are, respectively, liable to pay one dollar and fifty cents a week, which shall hereafter be one dollar and seventy-five cents a week; and the amount due from said cities and county, respectively, shall be paid on demand; and if not paid within ten days after the amount shall be audited, the amount due shall draw interest at the rate of one per centum per month until paid.

SEC. 2. That hereafter any boy under sixteen years of age who is destitute of a home or means of support, or who is idle and incorrigible or wandering about uncared for by relatives or friends, and whose parents, if he has any living within this District, are unable to pay the expenses of his support in the Reform School, may be sent to the said school at the expense of the city or county in which he may be found, by the judge of the police court, the governor of the Territory, or the president of the board of trustees of said school.

SEC. 3. That every boy sent to the Reform School shall remain therein until he is twenty-one years of age, unless sooner discharged or bound as an apprentice to some proper person by the board of trustees; but no boy shall be retained after the superintendent shall have reported him fully reformed.

SEC. 4. That whenever there shall be as large a number of boys in the school as can be properly accommodated, it shall be the duty of the president of the board of trustees to give notice to the criminal and police courts of the fact, whereupon no boys shall be sent to the school by the said courts until notice shall be given them by the president of the board that more can be received.

SEC. 5. That if any person shall entice, or attempt to entice, away from the school any boy legally committed to the same, or shall harbor, conceal, or aid in harboring or concealing, any boy who shall have escaped from said school, such persons shall, upon conviction thereof, be deemed guilty of a misdemeanor, and shall pay a fine of not less than ten nor more than one hundred dollars, which shall be paid to the treasurer of the board of trustees; and any trustee, or the superintendent of said school, and any policeman, shall have power, and it is hereby made their duty, to arrest any boy, when in their power so to do, who shall have escaped from said school, and return him thereto.

SEC. 6. That the sum of ten thousand dollars be, and the same is hereby, appropriated, out of any money in the Treasury not otherwise appropriated, to pay the annual salaries of the superintendent, one thousand five hundred dollars; two assistant superintendents, seven hundred and fifty dollars each; and the matron, six hundred dollars, and for assistant teachers and others, incidental expenses, including clothing, fuel, servant hire.



SEC. 7. That the Secretary of the Interior be authorized to purchase a new site for said school, to be selected by himself and the board of trustees, on which buildings for the accommodation of three hundred boys shall be erected, under the supervision of the said Secretary, the board of trustees, and the Architect of the Capitol; and for these purposes the sum of one hundred thousand dollars is hereby appropriated: *Provided*, That before any part of this appropriation shall be drawn plans and specifications of the building to be erected shall be made by the Architect of the Capitol and approved by the Secretary of the Interior; and the amount expended for the purchase of said site and the erection of said building shall not exceed the sum hereby appropriated.

Approved May 15, 1872.

AN ACT revising and amending the various acts establishing and relating to the Reform School in the District of Columbia.

*Be it enacted, etc.*, That the institution known as the Reform School of the District of Columbia shall be in the charge of, and governed and managed by, a board of seven trustees, who shall be appointed by the President of the United States, upon the recommendation of the Attorney-General, each for the term of three years, but in such a manner that the terms of not more than three of them shall expire within any one or the same year; that one of the trustees shall be elected president of the board, whose duty shall be prescribed by the board.

SEC. 2. That the board of trustees shall be a corporation by the name of the "Board of Trustees of the Reform School of the District of Columbia," for the purpose of taking and holding in trust for the United States, property of every description which has been purchased, appropriated, or set apart for its use, or given or bequeathed to it, or to the said board, for the use of the institution, or which may hereafter be purchased, appropriated, or set apart for its use, with all power necessary to carry this purpose into effect and to protect and preserve such property, including the land and buildings, fences, stock, fruit, crops, and trees of all kinds.

SEC. 3. That the board of trustees may appoint a superintendent, two or more teachers or assistants, and a matron, whose salaries are fixed by law; they may also employ two or three master mechanics, a farmer, a gardener, and such other persons as servants and laborers as may be necessary, and fix their compensation, subject to the approval of the Attorney-General.

SEC. 4. That the board of trustees shall appoint a treasurer, who shall, before entering upon the duties of his office, give a bond to the United States with two or more sureties, to be approved by the First Comptroller of the Treasury, in the sum of twenty thousand dollars, or a larger sum, at the option of said Comptroller, conditioned that he shall faithfully account for all the money received by him as treasurer; and it shall be his duty to keep a clear and full record of his accounts as treasurer, and report an abstract of the same to the board of trustees once in every two months, and shall also make an annual report to the board of trustees.

SEC. 5. That before entering upon the duties of his office, the superintendent shall give a bond to the board of trustees, with sureties, to be approved by the Attorney-General of the United States, in the sum of three thousand dollars, conditioned that he shall faithfully account for all money received by him, and faithfully perform all the duties incumbent on him as superintendent of said Reform School.

SEC. 6. That the superintendent shall reside at the institution constantly, and that he, with such subordinate officers as may be appointed in accordance with the third section of this act, shall have the charge and custody of the boys; shall govern them in accordance with such rules or regulations as the board of trustees may prescribe in its by-laws; shall employ them in agricultural, mechanical, and other labor; shall give them instructions in reading, writing, arithmetic, geography, and such other studies, and in such arts and trades as the trustees may direct; and shall employ such methods of discipline as will, as far as possible, reform their characters, preserve their health, promote regular improvement in their studies and employments, and secure in them fixed habits of religion, morality, and industry.

SEC. 7. That the superintendent shall have charge of the lands, buildings, furniture, tools, implements, stock, provisions, and every other species of property pertaining to the institution, within the precincts thereof, under the board of trustees, including the farm in possession of the board where the school was first located; and he shall keep in suitable books regular and complete accounts of all his receipts and expenditures, and of all the property intrusted to him, so as to show clearly the income and expenses of the institution; and he shall account, in such manner as the trustees may prescribe, for all the money received by him from the proceeds of the institution or otherwise; and he shall keep a register of the names and ages of all boys committed to the institution, with the dates of their admission and discharge,

and such particulars of the history before and after leaving the institution as he can obtain. His books and all documents relating to the Reform School shall, at all times, be open to the inspection of the trustees, who shall, once or more in every month, carefully examine his accounts, and the vouchers and documents connected therewith, and make a record of the result of such examination; and once in every three months, the institution shall be thoroughly examined in all its departments by three or more of the trustees, and a report of such examination shall be made to the board.

SEC. 8. That whenever any boy under the age of sixteen years shall be brought before any court of the District of Columbia, or judge of such court, and shall be convicted of any crime or misdemeanor punishable by fine or imprisonment, other than imprisonment for life, such court or judge, in lieu of sentencing him to imprisonment in the county jail or fining him, may commit him to the Reform School, to remain until he shall arrive at the age of twenty-one years, unless sooner discharged by the board of trustees. And the judges of the criminal and police courts of the District of Columbia shall have power to commit to the Reform School, first, any boy under sixteen years of age who may be liable to punishment by imprisonment under any existing law of the District of Columbia, or any law that may be enacted and in force in said District; second, any boy under sixteen years of age, with the consent of his parent or guardian, against whom any charge of committing any crime or misdemeanor shall have been made, the punishment of which, on conviction, would be confinement in jail or prison; third, any boy under sixteen years of age who is destitute of a suitable home and adequate means of obtaining an honest living, or who is in danger of being brought up, or is brought up, to lead an idle or vicious life; fourth, any boy under sixteen years of age who is incorrigible, or habitually disregards the commands of his father or mother or guardian, who leads a vagrant life or resorts to immoral places or practices, or neglects or refuses to perform labor suitable to his years and condition, or to attend school. And the president of the board of trustees may also commit to the Reform School such boys as are mentioned in the foregoing third and fourth clauses upon application or complaint in writing of a parent, or guardian, or relative having charge of such boy, and upon such testimony in regard to the facts stated as shall be satisfactory to him; and for taking testimony in such cases, he is hereby empowered to administer oaths.

SEC. 9. That every boy sent to the Reform School shall remain until he is twenty-one years of age, unless sooner discharged or bound as an apprentice; but no boy shall be retained after the superintendent shall have reported him fully reformed.

SEC. 10. That whenever there shall be as large a number of boys in the school as can be properly accommodated, it shall be the duty of the president of the board of trustees to give notice to the criminal and police courts of the fact; whereupon no boys shall be sent to the schools by the said courts until notice shall be given them by the president of the board that more can be received.

SEC. 11. That if any person shall entice, or attempt to entice, away from said school any boy legally committed to the same, or shall harbor, conceal, or aid in harboring or concealing any boy who shall have escaped from said school, such person shall, upon conviction thereof, be guilty of a misdemeanor, and shall pay a fine of not less than ten nor more than one hundred dollars, which shall be paid to the treasurer of the board of trustees; and any policeman shall have power, and it is hereby made his duty, to arrest any boy, when in his power so to do, who shall have escaped from said school, and return him thereto.

SEC. 12. That the trustees shall have full power to place any boy committed as herein described, during his minority, at such employment, and cause him to be instructed in such branches of useful knowledge as may be suitable to his years and capacity, as they may see fit; and they may, with the consent of any such boy, bind him out as an apprentice during his minority, or for a shorter period to learn such trade and employment as in their judgment will tend to his future benefit; and the president of the board shall, for such purpose, have power to execute and deliver, on behalf of the said board, indentures of apprenticeship for any such boy; and such indentures shall have the same force and effect as other indentures of apprenticeship under the laws of the District of Columbia, and be filed and kept among the records in the office of the Reform School, and it shall not be necessary to record or file them elsewhere.

SEC. 13. That for the support of the boys sent to the Reform School, as hereinbefore mentioned, the District of Columbia shall pay to the board of trustees two dollars for each boy per week; and it shall be the duty of the superintendent to make out and render to the proper officers monthly accounts at the close of each month for the support of the boys in said school, which shall be paid on demand; and, if not paid within ten days from the time the account is presented, shall draw interest at the rate of one per centum per month until paid.

SEC. 14. That all contracts and purchases made for or on account of the institution shall be made in the name of the board and by whomsoever the board may direct.



The president of the board shall be its executive officer, and it shall be his duty to make an annual report to the Attorney-General, to be accompanied by the annual report of the superintendent and treasurer.

SEC. 15. That the board of trustees may make such by-laws, rules, and regulations for their own and the government of the institution, its officers, employees, and inmates as they may deem necessary and proper.

SEC. 16. That two consulting trustees shall be appointed, namely, one Senator of the United States, by the presiding officer of the Senate, for the term of four years, and one member of the House of Representatives, by the Speaker thereof, for the term of two years.

SEC. 17. That all acts and parts of acts incompatible with this act are hereby repealed.

Approved May 3, 1876.

---

AN ACT making appropriations to supply deficiencies in the appropriations for the fiscal year ending June 30, 1879, etc.

(Par. 3.) That so much of act "making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1879, and for other purposes," approved June 20, 1878, which makes an appropriation for the expenses of the Reform School of the District of Columbia, shall not be considered as modifying or repealing the 13th section of the act entitled "An act revising and amending the various acts establishing and relating to the Reform School of the District of Columbia," approved May 3, 1876.

Approved March 3, 1879.

---

AN ACT making appropriations for the expenses of the District of Columbia for the fiscal year ending June 30, 1880.

(Section 1.) For Reform School. \* \* \*

(Par. 1.) That one of the Commissioners of the District of Columbia, to selected by the Board of Commissioners, shall be a trustee, with all the powers, privileges, and duties of other trustees of said Reform School.

Approved June 4, 1880.

---

AN ACT making appropriations for the expenses of the District of Columbia for the fiscal year ending June 30, 1885.

For Reform School: \* \* \* An itemized account of said income shall be submitted to and approved by the Commissioners quarterly.

Approved July 5, 1884.

---

AN ACT making appropriations to provide for the expenses of the government of the District of Columbia for the fiscal year ending June 30, 1886.

For Reform School: The support of inmates \* \* \* all in the discretion of the Commissioners of the District, \$25,000; and the accounting officers of the Treasury are hereby authorized to close the accounts of the Reform School for the fiscal years 1883 and 1884, if the same can be done without the payment of any money from the Treasury; and hereafter all the revenues derived from the labor of the inmates and from the products of the farm shall be paid into the Treasury of the United States to the credit of the United States and the District of Columbia in equal parts.

Approved February 25, 1885.



## EXHIBIT K.

METTRAY, August 23, 1892.

To the PRESIDENT:

I have perused with much attention and interest the statistical tables which you sent me. I thank you very sincerely for sending me the said document, to which I attach great value. I was very much pleased to learn that our establishment had served as a model for yours. We receive very often similar requests to yours from points in France, and from foreign countries, and it is always a pleasure to make known Mettray, and we are only too happy to be of use in the amelioration, morally, of delinquents.

I have the honor to send you by this mail our organic statutes, which are followed, except when modified in detail when found necessary by our directory. We follow, besides, the general ordinance of April 10, 1869, which is in force in all industrial institutions in France. I can not furnish you with a copy of this general ordinance, as I have but one myself, but it will be easy for you to obtain one by making the request of the minister of the interior at Paris, through the United States minister at Paris.

Since its foundation, Mettray has received 6,607 youthful inmates sent by the Government in virtue of article 66, and at least 2,000 children, which are confined directly by their families or by charitable institutions. Our present number is 600, of which 550 are of the former class and 50 of the latter.

Each inmate costs 1.40 francs per diem. All our pupils have a task, prescribed daily in proportion to age and to their willingness, which they devote to work. In addition, they receive good points, which they can take out in additional food, or such good points can be exchanged to produce a fund, given to them on their discharge. The daily value of such points varies from 8 to 3 centimes for the big boys to 6 to 1 centimes for the medium-sized, and from 4 to 1 centimes for the smaller. This fund varies from 50 francs to 200 to 300 francs, depending on the time passed in the institution and according to good conduct and assiduity in work.

We follow our pupils after their discharge. Many receive places in our immediate neighborhood, where our agents visit them; and as for those who reside at a distance, or who are returned to their families, each year we send a blank form for information (as per form forwarded as above) to be filled out by the parish priest, or to the mayor of the commune, or to some charitable persons, who keep us informed of the conduct of our ex-pupils. Those ex-pupils in the neighborhood visit us frequently, and we receive them, when sick, in our infirmary, and find them places when out of work. We assist them with clothing, and also render pecuniary aid when we are convinced their necessities require it. We also answer all letters from them.

You will find, page 60, report for 1892, a statistical table comparing Mettray with the public industrial institutions conducted by the Government and the private institutions directed by special administration during the past twenty years. You will see that Mettray occupies the first place in the list for the small number of pupils discharged who have fallen back to bad courses. We have reduced the number of such to but 4 to 5 per cent.

Our establishment occupies about 640 acres (hectares) of ground. We have four detached farms within 1 to 2 leagues distant from the main establishment, each of which farms contains from 40 to 50 inmates. In this way we find it easy to separate the big boys from the small. We do not receive criminals. These are sent to a special establishment (there are four such in France). All incorrigible characters are also sent to one of these establishments. Mettray only receives boys. I do not think there is any establishment in France which receives both sexes.

I regret that I am not able to send you statistical tables. I do not think that any such have ever been prepared.

You will find included in our last budget, contained in accompanying papers forwarded as above, full account as to receipts and expenses; also the number and commissions paid to agents.

If you have need of any further information, I place myself entirely at your disposition to furnish it.

Deign to accept, M. le President, the assurance of my highest consideration.

TH. CLUGE,  
Director, and Post Captain (retired).

## I 4.

## INDUSTRIAL HOME SCHOOL.

## The BOARD OF MANAGERS, INDUSTRIAL HOME SCHOOL.

The undersigned committee, appointed to review the work of the institution for the past year and to report thereon, respectfully submit the following:

As instructed, we include for your consideration suggestions in relation to improvements that are necessary in order that the officials in charge may be enabled to perform their duties satisfactorily and secure results that are the aim and object of the home, which, when attained, are of lasting benefit, not only to the community of the District of Columbia, but to the nation at large.

LEWIS ABRAHAM,  
Mrs. HULDAH W. BLACKFORD,  
J. B. T. TUPPER,

*Committee.*

## MANAGEMENT.

The Industrial Home School has now reached the twenty-fifth year of its existence.

Its affairs are administered by a board of managers who serve without monetary consideration, who devote considerable time and labor, and frequently personal financial expenditure, in performing their duties.

## OFFICERS FOR 1891-'92.

W. B. Gurley, *President.*

Hon. O. D. Conger, *First Vice-President.*

Hon. J. B. Edmunds, *Second Vice-President.*

Mrs. H. W. Blackford, *Secretary.*

Prof. B. T. Janney, *Treasurer.*

*Board of Managers.*—Mr. J. B. T. Tupper, Mrs. O. D. Conger, Mrs. C. E. Foster, Dr. M. D. Peck, Mr. James B. Nourse, Mr. B. H. Warner, Mr. J. Ormond Wilson, Mr. John D. McPherson, Dr. T. B. Hood, Mrs. J. B. T. Tupper, Mrs. J. B. Edmunds, Mr. Lewis Abraham, Mr. Carleton Hughes, Mrs. Emily Nourse, Rev. Neilson Falls, Miss A. Wilson, Mr. James Somerville, Mr. W. W. C. Danenhower, Mrs. B. T. Janney.

## COMMITTEES.

This board is subdivided into committees, each having special matters under charge, their action being subject to authorization and approval of the general board. District Commissioners Hon. J. W. Douglass and Hon. J. W. Ross are *ex officio* members of the board.

## LOCATION AND BUILDINGS.

The home is located on the Tennallytown road, next adjoining the new Observatory. The main building, as has been frequently reported, is unfit for the purpose to which it is by necessity devoted. Premises erected for an almshouse sixty-two years ago, and for about forty-five years thereafter occupied as refuge for paupers, are certainly unfit for occupancy as a schoolhouse and for other purposes for an average of 100 children.

At the last session of Congress an amendment was made in the Senate to the District appropriation bill appropriating \$4,000 for renovating and improving this portion of the premises. In the interest of economy this amendment was stricken out. As there is universal excitement and alarm against the spread of disease and earnest demand for rigid sanitary rules in public institutions as well as in private domiciles, it is evident that means should be afforded the managers of the home to provide suitable shelter and protection for the wards under their charge.

In this connection it is absolutely necessary that a separate building be erected without delay for hospital purposes, where children that may be afflicted with disease can be isolated from the general family of inmates. Equally important is it that there be provided school premises, suitably ventilated, apart from the buildings, devoted to mechanical and other purposes.

Teachers can not do good work in badly ventilated rooms, therefore the work of school suffers; but the greatest evil is that the health of the pupils is constantly endangered. Both teachers and pupils work to a disadvantage and are in constant danger. Epidemics find in these places food for fearful ravages. The influence of such environments upon the spirits, and of such atmosphere upon the vital organs, is a constant depression and can be but pernicious. (Report 1886-'87, District of Columbia.)

The school-room environment of the pupil is a factor in his educational development of more than ordinary importance. Nothing, perhaps, if we except good teachers, contributes more to the success of school work than well planned and suitably furnished school buildings. The proper heating, lighting, and ventilating of these buildings, as well as suitable fencing, grading, and beautifying of the grounds attached thereto, must each have its requisite attention before the highest results can be expected. (*Id.*)

The committees in charge of legislation and on buildings and grounds should be specially instructed to earnestly urge appropriations for the purposes set forth. It can not be contended that thereby demand is made for exceptional gratuities for the District. Apart from the necessities increasing in urgency every year, it is a matter of history that munificent national aid to education has been granted to the several States of the Union, and like practice in respect to this District would simply be carrying out the will of the National Legislature from the earliest days of the Republic.

Eight States of the Union, from 1821 to 1874, received nearly \$2,000,000 for educational purposes out of percentage of sales of public lands. Six and a half millions of money, under authority of Congress, were paid to States from same source for promoting education. Forty-eight millions of acres of public land were directly donated to fourteen States up to the year 1876. To continue statistical data on this matter is unnecessary, but as to the rights of this District the language of Hon. John Eaton, when filling the office of United States Commissioner of Education, is apposite:

#### POSITION OF THE DISTRICT OF COLUMBIA.

But we can not contemplate education in a national light without looking to that domain which is beyond State organizations, and which in respect to education has been conspicuously neglected since the passage of the great ordinance of 1787. The District of Columbia should have fair and just consideration. The fact that the seat of Government is here gives the nation a peculiar interest in the intelligence and virtue of the population. Where else should these characteristics be more conspicuous? The security of Government property, the honesty and efficiency of Government employes, and the fair fame of the nation are specially involved. Besides, there is special injustice in taxing the permanent population to provide the necessary means for the education of the children of those here as visitors or residing here temporarily in Government service.



It is noteworthy in this connection, that many demands on us are constantly made to care for children of adjacent States, under the impression that all institutions of the District of Columbia are supported exclusively by the United States.

#### OBJECT AND PURPOSE OF THE HOME.

This institution has a broader and more diversified scope of action than any organization in the District. It does not simply provide a place of refuge for dependent children, but, besides giving them shelter, food, and raiment, every effort is made to train them to become acceptable citizens when arriving at maturity. A common-school education is given to them, accompanied with moral and religious culture. Instruction in manual labor is imparted to inmates of suitable age and capacity, and the results are exceedingly gratifying. Many of the wards have been so educated in these branches that, on being discharged, they have been able to procure employment and fight the battle of life without assistance. Had they not been inmates of the home or a similar institution, they would have gravitated from the dependent to the delinquent class. It is unhesitatingly submitted that expenditures with such objects in view, and with results that experience has demonstrated, are economical even from a financial point of view, independent of the benefit to the community in wresting numbers of children from dangerous and objectionable surroundings and investing them with the attributes and qualities of true American citizenship. It is neither our purpose or ability to completely teach particular trades. A tentative knowledge of mechanics and science, preparatory to following future vocations, is all that can be imparted to children of the age under our guidance.

The growth of pauperism and incipient crime must be checked through such institutions as ours, if at all. Commitment of juveniles to penal servitude affords only temporary relief, but does not eventually arrest growth of the criminal class:

In a recent report of the Bureau of Education is published a valuable paper prepared by Hon. C. D. Randall, of Coldwater, Mich., from which the following excerpts are axiomatic on the important pressing question of treatment of dependent children:

The mental, moral, and physical perversion of the youth is the main cause of dependence and crime. The proper education of the youth is the one great remedy. The literature and laws of all ages confirm this. You will find it in the Bible, in Plato, in Homer, in Confucius, and in the wise moralists and lawgivers. Homer says: "Children belong less to their parents than to the state. They are the children of the people. They are the hope of the State. It is too late to mend them when they are spoiled. \* \* \* It is much better to prevent the evil than to be obliged to punish it."

In speaking of the correct education of children, says Confucius, aptly: "It can not be when the root is neglected that what should spring from it should be well ordered."

The state has a vital interest in its youth, who must grow up either to good citizenship to sustain and protect the state or as unworthy sons to undermine and destroy it. Pericles said of the Grecian youth killed in battle: "The loss which the state suffers by the destruction of its youth is like the loss which the year suffers by the destruction of spring." And the loss by the perversion of youth, how much more injurious to the state.

Neglected childhood, the want of school and trade education, ignorance, idleness, vice, evil associations, and their kindred influences are the causes of crime and pauperism.

Children so surrounded grow up with no self-respect, no self-reliance, with no resistance to temptations, easily drift into evil ways, and once lost seldom have the desire to return to virtuous ways. Born in the county poorhouse, or sent there under our indulgent laws, many even remain there, so that sometimes three generations of the same race may be found in the same poorhouse.

Gather statistics from whatever State or county you choose, and they all demonstrate that, from dependent children—orphans, half orphans, children of pauper, criminal, or intemperate parents—come the paupers and criminals that are supported by the public.

Speaking of children sent to poorhouses and penal institutions, he says:

As a rule, it would have been better for the children and for society if they had died before going there. There they are surrounded by the diseased, the insane, the idiotic, the wrecks of vicious lives.

In such a tainted atmosphere the child's character took early directions in the way of permanent dependency and then crime. Children in the county poorhouses grew up in ignorance, became idle, vicious, and depraved.

But the effect of this great wrong upon the child is not limited to him; it extends to the state, especially in republican governments. In this country the right of franchise extends to all alike. The vote of the worst man balances that of the best man in the land. The vote of both, for the safety of the state, should be an educated vote and an honest one. In our great centers of population this ignorant and low element of society is seriously consulted in politics and has much to do in controlling legislation.

Mr. Marble, delegate from Massachusetts to an educational conference held in this city, after reading the interesting essay, made the following remarks:

There can be no question that prevention is safer and more certain and economical than punishment or reformation, and that the national and State governments can not act too soon in improving their methods—their systems.

And let me say, right here, in this District is the place where an example might well be given to the whole country. Michigan, by its system of care and education of dependent children, has supplied the "missing link" in our educational methods, and the District, for its children, might well profit by the example. They stand out in relief more than any others in the land. Here for this people should be secured the fullest republican rights, the purest form of republican government. All the best elements of our educational systems might well be here molded into the one perfect system, and here might well be made, by the General Government, a model of educational methods which should show to the world what a free press, free speech, free thought, and free work can accomplish in the New World.

Mr. J. M. Wilson, of the District of Columbia, put in a plea for the industrial school of the District of Columbia. He said it was proposed to teach in this school shoemaking, gardening, sewing, cookery, and kindred work. They intended the school to be for practical work, and the rooms for each separate trade should be in themselves perfect museums to illustrate that particular trade through every step. For instance, in the room set apart for shoemaking, there you will find first the animal, then the hide undressed, then the leather, then how the leather is cut and sewed and pegged until the shoe is finished. These things are not only told the pupil, but he is instructed to do them himself. And the same idea is to be carried out in reference to other trades.

#### SCHOLASTIC.

The teachers in this branch of work of the home report as follows:

To the BOARD OF MANAGERS:

The school department, for the past year, has been conducted on the same plan and along the same lines as for several years past. In the higher grades we have put through several pupils and transferred them to city schools. The department, progress in scholastic work, and general success of the school during the past year will not, we think, suffer in comparison with former years' labors in these directions. We receive little attention from the school authorities in the way of improvements to school rooms. We have for several years urged the necessity of a new and separate building for school purposes exclusively. There is more need of one now than ever before.

Respectfully,

JOHN W. DOUGLASS,  
M. A. DOUGLASS, *Teachers.*



## THE CARPENTER SHOP.

Instruction has been given to a class of larger boys in the carpenter shop. They have acquired proficiency in the use of tools, which has been a great help in obtaining situations. It is not expected that this industry will be remunerative, from a financial point of view, owing to the age of the children employed and the small number of hours they are kept at work.

The following exhibit shows the receipts and expenditures of this branch for the year:

Expenses:	
Materials, tools, etc.....	\$135.92
Salary of carpenter .....	580.00
	<hr/>
	715.92
Receipts:	
From sale of tree boxes, tables, and other articles manufactured.....	129.35
	<hr/>
Excess of expenses over receipts .....	586.57

Mr. Mark L. Townsend was employed as instructor in this branch, upon the resignation of Mr. Simons, May 1, and is paid a salary of \$40 per month, besides being furnished with a room and board.

Besides the articles made for sale, the carpenter, with the assistance of the boys under his charge, have made the necessary repairs to the buildings, greenhouses, and fences, and made improvements on the grounds and premises.

A considerable quantity of tree boxes are now on hand, the lumber for which was bought and paid for during the past year. The boxes are valued at \$96 and were made at times when there was nothing else to do.

There has been a demand recently for tables, and a mortising machine has been purchased for \$25 to expedite filling orders. About 1,000 table legs are on hand and 800 feet of lumber for tables.

## THE GREENHOUSE AND GARDEN.

There are now three greenhouses, under charge of Mr. Brunger, the florist, and the management of this branch has been successful. His salary has been increased from \$30 to \$40 per month. The class of boys in this industry has received excellent instruction. A new greenhouse is needed, and we hope steps will be taken to enable it to be built the present year.

The expense of this branch was \$513.91, the receipts \$820.39, showing an excess of receipts amounting to \$306.48.

The boys have a stand at Rigg's Market where they sell flowers and plants, and a good trade has been established.

The larger boys take turns in going to the market and are allowed a commission of 10 per cent on all sales.

The stock of plants on hand is estimated to be worth \$1,481.45. It is larger and better than we have ever had before.

Every opportunity should be given for the advancement of this branch of industry. It is now self-sustaining and boys who have received education in horticulture and floriculture, have no difficulty in obtaining good situations.



The garden yielded last year (1891) the following produce:

Onions.....	bushels..	20	Dry beans .....	do....	3
Lettuce.....	heads..	2,000	Summer squash .....	do....	3
Peas .....	bushels..	12	Pears.....	do....	7
String beans .....	do....	30	Cabbage .....	heads..	4,000
Sugar corn .....	dozen..	250	Celery.....	do....	2,500
Tomatoes .....	bushels..	115	Pumpkins.....	do....	250
Lima beans .....	do....	15	Strawberries.....	quarts..	387
Eggplant .....	do....	7	Cherries .....	do....	286
Potatoes .....	do....	94½	Blackberries.....	do....	313
Beets .....	do....	14	Raspberries.....	do....	112

From the above were canned and preserved as follows:

Canned tomatoes .....	quarts..	362
Pickle.....	gallons..	27
Catsup .....	do....	8½
Preserves .....	do....	91
Jelly.....	glasses..	130

Cabbage, tomatoes, and pumpkins were exchanged for apples, sweet potatoes, damsons, grapes, and chestnuts.

The past summer, until the drought set in, the garden yielded an abundance of vegetables. The dry weather destroyed the strawberry patch and new plants must be set out. The tomatoes and eggplants were greatly reduced in quantity.

#### THE GIRL'S INDUSTRIES.

The older girls learn typewriting and general housework and ordinary domestic duties, such as cooking, laundry work, sewing by hand and machine, care of clothing, etc.

The matron in charge of this branch of the work makes the following report:

INDUSTRIAL HIGH SCHOOL, *October 21, 1892.*

During the past year the girls have shown great improvement both in conduct and work. Among other articles made in the class in fancy work were several Tam O'Shanter caps, which were worn during the winter. There are 5 girls in the class in typewriting, which are of great assistance to the superintendent, as they are able to do a great deal of writing for her. The improvement in instrumental music has been particularly marked, as, after only one year's instruction on the piano, they are able to take a very creditable part in the exercises in Sunday school. There are 3 of the older girls in this class, and as their time for practice is very limited, we feel very much encouraged over the success of this experiment, as it was simply started for amusement and recreation. In addition to these classes there are classes in housework, laundry work, darning, mending, etc.

Very respectfully,

M. J. GARDNER,  
*Cottage Matron.*

#### ADMISSION AND PLACEMENT.

Fifty-five children were admitted to the Home and 55 discharged. Homes were found for 13, and employment, with pay, for 10; 21 were returned to mothers; 5 to their fathers; 1 to a sister; 1 to an aunt; 1 was accidentally drowned, and three absconded.

The superintendent reports:

A number of young men, who are graduates from the school, visit us every Sunday. They are all employed in and around the city, and seem to be on the road to useful lives and good citizenship. I do not know of one idler among the boys who have been trained here,

The committee on this branch meet on the second Wednesday of each month at the rooms of the Humane Society in the Sun building, F street N.W., and carefully consider every application for admission or discharge.

A medical examination is made of every child before receiving certificates of admission. In some instances it is necessary to refuse children afflicted with disease.

During the last year there were three applications rejected; upon examination the children were found to be feeble-minded and we have no means to take such in charge.

A large number of our wards are admitted by request of the Humane Society, the Newsboys and Children's Aid Society, the relief committee of the Grand Army of the Republic, and the District officials.

We have been aided in investigations in many cases by Officer Samuel Wilson, agent of the Humane Society.

A list of children under our charge will be found in the appendix.

#### GUARDIANSHIP.

Under act of Congress approved July 26, 1892, a board of children's guardians has been appointed. Many cases brought to our attention may be appropriately referred to said official guardians, and necessary amendments to our existing rules, relating to admission and placement of children should be brought to the attention of the committee on legislation at an early meeting of the board of managers.

#### THE SUPERINTENDENT.

Mrs. Kate Barlow, the superintendent, continues to perform the arduous duties of her position to the complete satisfaction of the board. Her monthly reports embrace every detail relating to the internal management of the institution, which under her careful supervision continues to have the true characteristics of a home. Suitable pleasant recreation is afforded the wards on appropriate occasions. The national holidays are properly observed. On the Fourth of July, Thanksgiving Day, Christmas, and suitable occasions Mrs. Barlow prepares enjoyable entertainments that make the little waifs happy, and feel that they are members of a united family, not inmates of a house of refuge. The influence of kind treatment is apparent to any visitor. As a rule the children are generally happy and contented. Many kind friends generously assist in affording comfort to the wards, such as never could have been attained at the places from which they were brought.

Rev. Mr. Falls on one occasion took twenty-five on an excursion to Bethesda Park, which they greatly enjoyed.

Miss Barnard presented the school repeatedly with quantities of fruit.

On the Fourth of July the children had an enjoyable day. Fireworks in the evening were paid for by our president. Dr. Hood gave ice cream to the entire school, also paid for their admission to the circus.

On last Christmas week there was a special entertainment at which the children joined in singing and reciting. The reception room was elegantly decorated and a sumptuous Christmas dinner partaken of. Each child received a present. Mrs. W. B. Gurley donated \$50 towards defraying the expenses. Contributions were also made by Mrs. J. D. McPherson, Messrs. Offut and Tschiffely, Mrs. O. D. Conger, Mrs.



J. B. Edmunds, Mrs. C. E. Foster, Dr. M. D. Peck, Mr. Stohlman, Mr. Lewis Abraham, Messrs. Storm and Sherwood, Mr. Wickersham, etc.

Mr. Stevens presented the school with twenty-five singing books. Mr. Janney took the entire school on one occasion to witness the dog show, and the visitors were much gratified and thankful to their kind and generous escort.

For last Thanksgiving Day turkeys were donated by Messrs. Offut, Adler, B. and W. Nordlinger, Tenney, Libbey, Wheeler, Lansburgh Brothers, and Georgetown Gas Company. Mrs. C. E. Foster and Mrs. J. B. Edmunds each gave a barrel of apples. Dr. Hood gave seven baskets of grapes, sweet potatoes, and a turkey. Mr. Stohlman sent 200 small cakes and two large ones.

As the money at our disposal is strictly expended for the purposes appropriated, the thanks of the board are cordially extended to kind friends of the institution who constantly contribute means for festive occasions. Such events form important episodes in the life of our wards; they appreciate that they are not outcasts, but members of a common human and humane family. It is unreservedly stated that such treatment is as valuable an element of education as the most rigid scholastic curriculum; it opens the hearts and inspires the souls of the recipients. Truly a smile is more instructive than a tear. If we are to teach the religion of love, let the hands of the superintendent continue to be strengthened by friends in promotion of happiness of those under her maternal care.

#### FINANCIAL.

The expenditures of appropriations made by Congress are all audited by officials of the Treasury Department. All disbursements, previously to being made, are carefully considered by the board at its monthly meetings and no money is spent until duly authorized by them. The following report by our treasurer details every item of this branch. Mr. Janney also treats on many subjects that should receive careful consideration.

INDUSTRIAL HOME SCHOOL, DISTRICT OF COLUMBIA,  
*Georgetown Station, Washington, D. C., July 20, 1892.*

MY DEAR SIR: I would herein most respectfully present for your consideration my fourth annual report as treasurer of the Industrial Home School of District of Columbia.

Owing to the fact that Congress deemed it best to discontinue the appropriation of \$2,000 for "industries and repairs" which we enjoyed last year, we have felt more than usually cramped and have been compelled to cut in many places where cutting is poor economy. It is, in my opinion, very poor policy to compel the guardians of wards, such as ours, to practice such rigid economy. It would be great wisdom on the part of our lawmakers to so equip this institution that it could receive, and well care for, children of 2½ and 3 years of age. There is an unappreciated advantage in having a favorable opportunity to reach at this early age in the lives of these young persons, who, later, if not thus reached and saved constitute the truant element of society, that class of unstable persons whom, as is seen every day, no school is able to hold and interest. Children are oftentimes unjustly called "bad." They are not bad when they first begin to manifest characteristics of badness. They are weak in self control. If allowed to drift, and the more they drift the less power they have over themselves until they reach the borders and enter the arena of crime, that is hard-by when their drifting ceases, and they become aggressive wrongdoers and soon become a menace and expense to the State.

"Could these children be taken early in life and be given the training that the Industrial Home insures, most of them could be saved from transgression and be led to enter the walks of useful and productive lives.

"The expense of prevention, certainly insured here, would be less than that incurred by the State in arresting, guarding, and punishing, after crime has become a habit, those who might be saved by timely influence for good."



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 295

The long sought and much needed hospital is not yet in sight. In the fact that an all-wise Providence has not seen fit to visit with dire results the confining of sick children within the same buildings constantly inhabited by those who are not sick, there is no shadow of reason why our committee on legislation should cease their efforts to secure a hospital.

The amount of money appropriated by the United States Congress for maintenance, etc., of the Home, for the fiscal year 1892 (\$11,500), has all been expended, as follows:

Bread.....	\$946.04	Miscellaneous.....	250.92
Crockery.....	52.34	Stationery and books.....	5.25
Clothing.....	102.24	Shoes.....	446.15
Coal.....	1,051.00	Seeds, plants, etc.....	27.65
Feed.....	285.91	Smithing.....	48.29
Gas.....	176.55	Dry goods.....	464.34
Drugs.....	79.16	Paints, oils, etc.....	43.00
Lumber.....	376.63	Lime, cement, etc.....	15.25
Groceries.....	1,014.47	Hardware.....	54.82
Meat.....	395.57	Repairs to steam heating.....	233.90
Milk.....	654.60	Printing.....	61.90
Salaries.....	4,690.52		
Manure.....	23.50	Total.....	11,500.00

Of the bank fund belonging to the institution there was left on hand—

From the fiscal year 1891.....	\$86.87
Received from industries.....	979.70
Received from memberships.....	28.00
Total.....	1,094.57
Amount disbursed.....	832.24
Balance in bank July 1, 1892.....	262.33

As shown in the following statement:

*Statement showing the purposes for which the bank fund of the Industrial Home School was expended during the year 1891-'92.*

Bread.....	\$85.05	Milk.....	\$54.00
Salaries.....	70.00	Crockery.....	3.55
Stationery, books, etc.....	34.13	Meat.....	25.43
Seeds, plants, etc.....	48.83	Drugs.....	9.15
Manure.....	9.50	Hardware, repairs, etc.....	22.98
Pigs.....	4.50	Gas.....	6.15
Groceries.....	207.31	Feed.....	13.50
Fuel.....	46.20	Lumber.....	23.04
Physician's bill.....	18.00		
Dry goods.....	49.00	Total.....	832.24
Miscellaneous.....	101.92		

Respectfully submitted.

B. T. JANNEY,  
Treasurer.

Mr. WILLIAM B. GURLEY,  
President Board of Managers Industrial Home School,  
District of Columbia.

## PHYSICIAN'S REPORT.

1430 THIRTY-THIRD STREET W.,  
Washington, October 19, 1892.

LADIES AND GENTLEMEN: It is difficult to render a report where there is little or nothing on which to base such a report. Calls for medical service to the children of the school are so few, the intervals between calls so long, and the nature of the ailment so unimportant, that there is little worthy of your attention. A few minor accidents, some unimportant skin diseases, and an occasional case of disordered stomach is about all we have had to contend with during the year ending July 1, 1892.

Under the good judgment of your superintendent, much of which was objectionable from a sanitary point of view, has been remedied, and few institutions of like size and character can present such a clean bill of health, the cost for medical services during the past year being only \$21.50.

I regret to state that we have had one death from accidental drowning. On re-

covery of the body every effort was made to resuscitate the child but without avail. Death had claimed its victim.

I have heretofore invited your attention to the great need of a hospital building where patients with contagious diseases may be isolated. We have escaped thus far any wide-spread disease of a contagious nature, but sooner or later the necessity of such a building will be upon us. Now is the time to prepare for an emergency. Such a building should not be connected with either of the other buildings. There should be two wards accommodating from ten to twelve beds each, one for the boys and one for the girls. These wards should have no immediate connection with each other. Each should have separate bath-room facilities with hot and cold water. There should be a room for a nurse and one for suspects. The heating and lighting should be a part of the present system now in use at the school.

Gentlemen and ladies, I can not too strongly urge this matter on your attention, and I very much fear some day we shall have cause for regret over present apathy in this important matter.

I am, very respectfully,

J. F. R. APPLEBY, M. D.

The BOARD OF MANAGERS, INDUSTRIAL HOME SCHOOL.

#### APPENDIX.

The following is a list of present wards and dates of admission:

##### BOYS.

Name.	Date of admission.	Name.	Date of admission.
Clarence Olmstead .....	November 9, 1890.	Thomas Wright.....	September, 1892.
Frank Fleury .....	July, 1891.	James Turner.....	September, 1890.
Willie Pettit .....	December, 1891.	Lee Padgett.....	July, 1890.
Montgomery Harover .....	Do.	Willie Loudon.....	March, 1890.
Elmer Haggermaker .....	May, 1891.	Allie Thompson.....	February, 1887.
James Gray .....	March, 1890.	Walter Long .....	February, 1891.
Harry Walker .....	May, 1890.	James Claxton .....	November, 1890.
Oscar Ford.....	January, 1890.	Robert Gant.....	March, 1892.
C. Burgess .....	June, 1890.	Henry Johnson.....	July, 1891.
Harry Jones .....	March, 1890.	Amos Grimes .....	February, 1891.
Shelton Stockman.....	October, 1892.	Willie Padgett .....	July, 1890.
Frank Stockman .....	Do.	James Mitchell.....	February, 1888.
Lawrence Tenley .....	September, 1891.	Charlie Kryer.....	June, 1891.
Herbert Blackman .....	1887.	Willie Wagner .....	September, 1886.
Bernard Leonard.....	August, 1890.	William Turner.....	September, 1890.
George Abbott .....	December, 1891.	Arthur Weiss .....	March, 1885.
Milton Weeks .....	May, 1892.	Harvey Curtis .....	August, 1889.
George Weeks .....	Do.	Tom Collins.....	September, 1890.
Clyde Metheny.....	July, 1892.	Charlie Walker .....	January, 1888.
Arthur Metheny .....	Do.	Charlie Tasker .....	May, 1886.
Willie Weisse.....	March, 1888.	Joseph Bishop .....	February, 1891.
Willie Coates .....	July, 1886.	Guy Rutherford.....	May, 1892.
Arthur Ward .....	May, 1891.	Edward Haggermaker.....	February, 1891.
Allie Bailey .....	November, 1891.	Abraham Long.....	February, 1891.
Wm. Clevis .....	October, 1886.	Walter Coates.....	September, 1886.
Frank Hadaway .....	July, 1890.	Tom Stone .....	July, 1892.
Park Ward.....	May, 1891.	Charlie Gant .....	March, 1892.
Arthur Ward .....	Do.	Mayo Mitchell .....	February, 1888.
Willie Sandstrum.....	September, 1891.	Edward Turner .....	September, 1890.
Francis Bailey.....	November, 1891.	Fred. Wagner .....	July, 1890.
Lewis O'Brien.....	January, 1888.	Walter Gant .....	March, 1892.
Eddie Harney .....	July, 1890.	Charlie Godfrey.....	October, 1892.
Thomas Miller .....	October, 1892.	Percy Fleury.....	September, 1891.

##### GIRLS.

Bessie Choy.....	October, 1887.	Mabel Landon.....	December, 1890.
Laura Collins .....	September, 1890.	Katie Godfrey.....	October, 1892.
Bertie Sesson.....	April, 1891.	Lena Roach .....	September, 1887.
Ruby Mathews .....	May, 1886.	Maggie Emerich .....	May, 1892.
Maggie Collins .....	November, 1884.	Eva Bowman .....	October, 1892.
Maggie Sandstrum.....	September, 1891.	Tillie Bailey .....	November, 1891.
Rena Johnson .....	August, 1891.	Clara Ramsey .....	April, 1890.
Serepta Fisher .....	May, 1892.	Katie Sandstrum.....	September, 1891.
Katie Bosworth .....	August, 1890.	Maggie May .....	September, 1890.
Adeline Thompson.....	April, 1890.	Nellie Turner .....	Do.
Daisey Bosworth.....	August, 1890.	Dello Thompson.....	Do.
Eva Fluery .....	July, 1891.	Lillie Burgess.....	June, 1890.
Mattie Fisher .....	May, 1892.	Sarah Arnold .....	September, 1891.
Isabella Tooney .....	Do.	Corin Carlisle .....	September, 1892.
Maggie Arnold.....	September, 1891.	Laura Choy .....	July, 1892.
Della Goodrich.....	January, 1890.		

Numerous letters of thanks have been received from guardians of children under our care, and from others at whose instance wards have been admitted, from which the following selection is made:

NEWSBOYS AND CHILDREN'S AID SOCIETY,  
Washington, D. C., October 19, 1892.

MY DEAR SIR: It gives me great pleasure to give my testimony in regard to the Industrial Home School, of which you are one of its officers. During my time at the Newsboys' Home, nearly covering five years, it has been a source of comfort to know that there was a place where very young children could be placed. I do not know just how many children have been kindly taken from our Home and placed in your institution, where some of them now are doing well in their studies. The institution is well managed, and its officers and superintendent, Mrs. K. Barlow, deserve great credit, judging from the appearance of the little folks. Many mothers' and fathers' lives have been made happy through the Industrial Home School; it is just what the city needed to make its children better. May God bless it.

Very respectfully, yours,

PETER B. SWEENEY,  
Agent.

Mr. LEWIS ABRAHAM.

MANAGER'S OFFICE OF LANSBURGH & BRO.  
Washington, D. C., October 19, 1892.

DEAR SIR: It gives us great pleasure to again report the excellent results accomplished by the boys we have in our employ from the Industrial Home School. We have reason indeed to prefer giving them employment, whenever we can use them, aside from the fact that we are doing the young boys "a good turn" for they have proven, without exception, very satisfactory employes. We have now in our employ several as cash boys, three that have been promoted to stock boys, one who is now a salesman, and one is one of the assistant cashiers. In each instance they do better than we anticipated. The one that is promoted to cashier is an exemplary young man, thousands of dollars come into his possession during the year, and his accounts are always correct. They all show that they have had good training. They are not alone reliable but are punctual; their record is splendid, and to fully prove our confidence in lads recommended by your school, we need only add that their applications will always receive preference.

Yours, very truly,

LANSBURGH & BRO.  
Per I. GANS.

Mr. LEWIS ABRAHAM.

707 G STREET NW.  
Washington, D. C., October 21, 1892.

DEAR SIR: As the year is drawing to a close I am reminded of the Industrial Home School as the ideal, unique, substantial, and permanent institution for the care, instruction, and preparation of boys and girls for future usefulness and self support.

The more experience I have in charitable work, the more I am impressed with the usefulness and importance of that institution, and I am thoroughly convinced of its good management.

I want to thank you and those whom you represent for their cordial and helpful cooperation with the Associated Charities in taking up children sent to you by us who so much needed the fostering care and training of that home.

I am, very respectfully,

L. S. EMERY,  
General Secretary Associated Charities.

Mr. LEWIS ABRAHAM, Esq.,  
1211 F street NW., Washington, D. C.

THE WASHINGTON HUMANE SOCIETY,  
Washington, D. C., October 24, 1892.

DEAR SIR: In looking over the records of this for the past year I find that I have had admitted to the Industrial Home School thirty-eight children, and it gives me great pleasure to notice their progress in the training they have received, as well as the



excellent management of the institution. It is also within my knowledge that many of those admitted would doubtless have suffered for the necessities of life if it had not been for the kind offices of the school under your charge.

I recall with great pleasure and satisfaction the kindness and courtesy of Mrs. Barlow, the able superintendent, who has very considerably aided me in my work. I feel it due to you to say that the record of the Industrial Home School is second to none in the District.

Very respectfully,

S. WILSON, M. P.,  
*Agent Humane Society.*

LEWIS ABRAHAM, Esq.,

*Chairman of Committee on Admission and Placement.*

#### LIST OF OFFICERS AND MANAGERS FOR 1892-'93.

##### OFFICERS.

W. B. Gurley, president, 1335 F street.  
Hon. O. D. Conger, first vice-president, 1321 M street.  
Hon. J. B. Edmunds, second vice-president, 1625 K street.  
Mrs. H. W. Blackford, secretary, 3156 P street.  
Prof. B. T. Janney, 3514 Prospect avenue.

##### MANAGERS.

Mr. J. B. T. Tupper, 1316 Sixteenth street.	Mr. J. Ormond Wilson, 1439 Massachusetts avenue.
Mrs. J. B. T. Tupper, 1316 Sixteenth street.	Miss A. Wilson, 1218 Connecticut avenue.
Mrs. O. D. Conger, 1321 M street.	Mr. Jas. Somerville, Sixteenth street and Howard avenue, Mt. Pleasant.
Mrs. J. B. Edmunds, 1625 K street.	Dr. T. B. Hood, 1009 O street.
Mrs. C. E. Foster, 1017 Sixteenth street.	Mrs. B. T. Janney, 3514 Prospect avenue.
Mr. Lewis Abraham, 1311 F street.	Rev. G. F. Williams, 620 G street SE.
Dr. M. D. Peek, 934 F street.	Maj. F. A. Aldrich, Seventeenth street and Howard avenue, Mt. Pleasant.
Mr. James B. Nourse, Highlands, Georgetown, D. C.	Chas. E. Foster, 1017, Sixteenth street.
Mrs. Emily Nourse, 2823 Q street.	
Rev. Neilson Falls, Mt. Albans, Georgetown.	

##### COMMITTEES.

*Admission and Placement.*—Mr. Lewis Abrahams, Mrs. B. T. Janney, Miss A. Wilson, Mrs. J. B. T. Tupper, Mrs. C. E. Foster, Rev. G. F. Williams, Dr. T. B. Hood.  
*Industrial Education.*—Mr. J. Ormond Wilson, M. John D. McPherson, Maj. F. A. Aldrich, Mr. C. E. Foster.  
*Finance.*—Mrs. H. W. Blackford, Rev. G. F. Williams, Dr. M. D. Peck.  
*Legislation.*—Hon. O. D. Conger, Mr. J. O. Wilson, Mr. John D. McPherson, Rev. Neilson Falls, Dr. T. B. Hood, Hon. J. B. Edmunds, Miss A. Wilson, Maj. F. A. Aldrich.  
*Sub Committee Girls Industries.*—Mrs. E. L. Nourse, Mrs. J. B. T. Tupper, Rev. Neilson Falls.  
*Housekeeping Committee.*—Mrs. O. Conger, Mrs. H. W. Blackford, Mrs. C. E. Foster, E. L. Nourse, Mrs. J. B. Edmunds, Mrs. B. I. Janney, Mrs. J. B. J. Tupper, Miss A. Wilson.  
*Building and Grounds.*—Hon. J. B. Edmunds, Hon. O. D. Conger, Mr. Jas. W. Somerville, Mr. B. I. Janney, Mr. Jas. B. Nourse, Maj. F. A. Aldrich.  
*Green House and Garden.*—Mr. J. B. I. Tupper, Mrs. J. B. I. Tupper, Mrs. C. E. Foster, Mr. C. E. Foster.

## I 5.

## REPORT OF THE COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM.

WASHINGTON, D. C., *October 28, 1892.*

DEAR SIR: In accordance with the law and usage I take pleasure in laying before you the annual report of the board of directors of Columbia Hospital for Women and Lying-in Asylum.

It includes the separate reports of the medical staff, the treasurer, the superintendent, and the committee on personal property.

We call your attention to the increased number of patients under treatment, to the gravity and skill of the operations, and to the judicious expenditures of moneys intrusted to the board, as evidences of success and progress.

There never has been more cordial sympathy between the different departments of service, nor more skillful and satisfactory results. This condition of affairs has so increased the confidence of the clientage of the hospital that it has caused the board to seriously discuss the necessity for enlarged accommodations.

The steady growth of the city and of the reputation of the hospital, invite your earnest coöperation in devising means to meet so flattering an emergency.

The sum asked for the ensuing year has been carefully considered, and is the minimum amount to maintain the present successful administration. We solicit your cordial commendation to the Commissioners, and confidently anticipate the favorable legislation of Congress.

WM. ALVIN BARTLETT,  
*President of the Board of Directors.*

The SUPERINTENDENT OF CHARITIES OF THE DISTRICT OF COLUMBIA.

COLUMBIA HOSPITAL, *Washington, D. C., July 18, 1892.*

GENTLEMEN: I have the honor to present the following report:

During the past year there have been 586 patients admitted to the hospital, and 567 have been discharged, being an increase of 162 admissions over the preceding year. There have been 1,411 new patients admitted to the dispensary, an increase of 311 over the previous year. The daily average of hospital patients, excluding babies, is 48.08; that of last year, 35.18.

The amount of money received from pay patients is \$4,444.40, almost double that of last year.

The hospital seems, on the whole, to be in a prosperous condition.

The nursing has been in the main satisfactory, though I feel assured that if we succeed in establishing a training school and granting a diploma, we will be able to secure a class of women to train as nurses who shall have consideration for the nobility of their profession and for the high standard to be maintained in it, as well as a means of earning their daily bread.

There has been prepared a complete inventory of the property of the hospital, which I have the honor to submit to the board and the committee authorized to inspect the same.

Very respectfully,

GEORGINA F. POPE,  
*Superintendent.*

The BOARD OF DIRECTORS, COLUMBIA HOSPITAL.

COLUMBIA HOSPITAL,  
Washington, D. C., October 11, 1892.

GENTLEMEN: We hereby respectfully submit the annual report of the medical board of the hospital for the fiscal year ending June 30, 1892.

I. S. STONE, M. D.  
J. FORD THOMPSON, M. D.  
J. WESLEY BOVÉE, M. D.  
A. F. A. KING, M. D.

The BOARD OF DIRECTORS, COLUMBIA HOSPITAL.

REPORT OF COLUMBIA HOSPITAL FOR WOMEN AND LYING-IN ASYLUM.

Patients in hospital July 1, 1891 .....	43
Patients admitted during the year .....	586
	629
Discharged or left during the year .....	567
Died .....	17
Remaining under treatment July 1, 1892 .....	45
Death rate per cent during the year .....	0.027
Prescriptions compounded during the year .....	4,432
Daily average of patients, exclusive of babies .....	48.08

NATIVITIES.

Alabama .....	3	Mississippi .....	4
Canada .....	2	New Jersey .....	1
Connecticut .....	3	New York .....	21
Delaware .....	2	North Carolina .....	9
District of Columbia .....	129	New Hampshire .....	2
England .....	3	Ohio .....	4
France .....	1	Pennsylvania .....	15
Germany .....	22	Russia .....	3
Georgia .....	1	Scotland .....	3
Hungary .....	1	South Carolina .....	4
Illinois .....	3	Sweden .....	1
Ireland .....	23	Texas .....	2
Indiana .....	1	Unknown .....	4
Italy .....	1	Virginia .....	230
Kentucky .....	3	West Virginia .....	3
Louisiana .....	2		
Maryland .....	111	Total .....	629
Massachusetts .....	12		

CITIZENSHIP.

District of Columbia .....	480	Scotland .....	1
Kentucky .....	1	South Carolina .....	2
Maryland .....	40	Unknown .....	4
Massachusetts .....	2	Virginia .....	89
Michigan .....	1	West Virginia .....	2
Mississippi .....	1		
North Carolina .....	2	Total .....	629
New York .....	4		

COLOR.

White .....	333
Colored .....	296
Total .....	629



## REPORT OF GYNÆCOLOGICAL DEPARTMENT, COLUMBIA HOSPITAL.

GENTLEMEN: We herewith offer the report of the gynæcological department of this hospital for the fiscal year ending June 30. It will be seen that 137 cases have been admitted from the dispensary and 192 from other sources. Of these 126 were private patients. Of the whole number 144 were surgical and 175 required medical or other treatment. Of the surgical cases 51 were of such a nature as to require capital operations for their relief. The result of all surgical work will be seen elsewhere.

The BOARD OF DIRECTORS:

## REMARKS UPON SURGICAL CASES TREATED IN COLUMBIA HOSPITAL.

The recent rapid progress made by surgeons in the safe and speedy relief of many otherwise incurable diseases has attracted the attention and challenged the admiration of intelligent and scientific people everywhere. In no other department of surgery or medicine has such marked advance been made as in the treatment of cases for which this hospital was established. It will be seen by reference to hospital reports or medical journals that the number of cases to be cured by a resort to surgery is constantly on the increase. The policy of the staff of this hospital has been on the side of conservatism. All capital operations have not only been justifiable as shown at the time of operation, but in most cases the patient's life could have been saved in no other way. The difficult cases are the rule and not the exception.

## ASEPTIC SURGERY.

The secret of success in surgery depends more upon asepsis (cleanliness) than aught else. So much has been said upon this subject that we forbear more than mention of the fact that surgical cleanliness is as important as surgical skill. Neither can be successful without the other. Assistants, nurses, instruments, and all appliances, as well as the patient and operator, must be aseptic. The above remark is not fully comprehended until one witnesses all the requirements preliminary to a well-conceived and successfully executed laparotomy.

## TREATMENT OF PURULENT COLLECTIONS WITHIN THE PELVIS.

The medical board has adopted without hesitation the one unvarying treatment for pus in the pelvis or abdomen; evacuation, generally by abdominal section. In many of these cases diseased "ovaries and tubes" constituted but a small portion of the pathological condition. In some cases the whole pelvis and lower abdomen was filled with intestine united in one mass of almost indefinable and indescribable nature. To separate these adhesions and repair injured bowel furnished opportunity for surgical skill not often equaled in other surgical work, and beside which ordinary ovariectomy sinks into insignificance. You may observe in the list of operations for pelvic abscess a larger proportion than usually seen in gynæcological hospitals. We will not make mention of these important cases in detail, but shall only refer in general terms to the very satisfactory results obtained by prompt treatment of these cases as soon as a diagnosis of "pus in the pelvis" is made. Some cases were admitted after months of treatment by physicians in the hope of averting operation. Others had indefinite symptoms attended by wasting of flesh until the patient appeared like a victim of tuberculosis. Specific diseases figure prominently as factors in the causation of these dangerous pathological conditions. Infection in some form is very generally the cause of pyosalpinx and the usual train of subsequent complications.

As a large proportion of all patients are sent to the hospital by other physicians for surgical treatment, it necessarily follows that surgical operations are of frequent occurrence. Due regard is, however, paid to all other methods when available as a means of cure. This statement can be easily confirmed by anyone who may be sufficiently interested to visit the institution and observe the methods employed.

In closing this report we again call your attention to the need of better facilities in the pathological department. We have no suitable room for a museum, and many valuable and rare specimens have been lost for want of facilities for their preservation. Again, there is need for a competent microscopist and pathologist. The internes are daily in attendance upon surgical and obstetrical cases and can not be permitted to do post mortem work. There is great need in this city for a hospital (which may with propriety be added to this one) where women may have treatment for hysteria and allied nervous disorders, especially when these diseases are consequent upon or connected with those peculiar to females. Many women are great

sufferers from hysteria, insomnia, and neurasthenia. They are not subjects for a hospital like this, nor are they to be confined in an asylum for the insane. They need rest, seclusion, and moral management as well as proper treatment to promote a cure. It is beyond our ability to provide for this class in the present building. They prove to be unsatisfactory cases and have a demoralizing effect upon other patients who are fit subjects for this hospital. They in turn are unduly excited or influenced by the usual and unavoidable scenes in a hospital where surgical cases abound. It is earnestly recommended that you may give this matter your attention. In the event of the erection of a new building for surgical work, a part of the present structure could be appropriated to this class of cases.

It affords us great pleasure to again allude to the growth in popularity of the hospital and its increased usefulness as evidenced by increasing number of patients, especially in the private rooms.

I. S. STONE, M. D.

J. FORD THOMPSON, M. D.

Patients in hospital July 1, 1891 .....	25
Admitted during the year .....	294
Total to be accounted for .....	319
Discharged or left .....	270
Died .....	16
In hospital July 1, 1892 .....	33

*Medical and surgical cases for fiscal year 1891-'92.*

Diseases.	Cured.	Relieved.	Unrelieved or incurable.	Not treated.	Unknown.	Died.	In house.	Total.
Abscess of anterior of vaginal wall .....	1							1
Abscess, labial .....	1							1
Abscess, inguinal .....	1							1
Abscess, ovarian .....							1	1
Abscess, pelvic .....	3	3	1	1		2	1	10
Abscess, tubo-ovarian .....						1		1
Ascites .....	1	1	1					3
Atresia, vaginal .....				1				1
Anteflexion .....				1				1
Carcinoma of rectum .....				1				1
Carcinoma of vaginal wall .....		1						1
Carcinoma uteri .....		2	3	3				8
Chancroid .....	1	1						2
Cirrhotic ovaries .....	1							1
Cystocele .....	1		1				1	3
Cystocele and rectocele* .....						1		1
Cystocele and retroversion of uterus .....			1					1
Cystitis .....		2						2
Cystic ovaries .....	6	4	1	1		1	2	15
Cyst of kidney .....	1							1
Cyst, dermoid, of ovary .....	2							2
Dysmenorrhea .....	5	11			1			17
Embolism of popliteal artery and kidneys .....		1						1
Endometritis .....	7	8						15
Endometritis, hemorrhagic .....	7	2						9
Endometritis, suppurative .....	2	2	1	1			1	10
Endometritis with retroversion .....			1					1
Endometritis and vaginitis .....	1							1
Endometritis and salpingitis .....	1							1
Epilepsy .....			1					1
Erosion of cervix .....	4	1						5
Extra-uterine pregnancy .....								
Fibroma uteri .....	5	1	2	5		1		14
Fibroma uteri with double pyosalpinx .....		1				4	1	6
Fibro-cystic tumor of uterus .....						2		2
Fissure in ano .....	1							1
Gastritis .....		1						1
Gonorrhea .....				1				1
Hemorrhoid .....	1	1						2
Hydrosalpinx .....	1							1

\* Died suddenly of heart failure.

*Medical and surgical report for fiscal year 1891-'92—Continued.*

Diseases.	Cured.	Relieved.	Unrelieved or incurable.	Not treated.	Unknown.	Died.	In house.	Total.
Hydrosalpinx with cystic ovaries.....							1	1
Hypertrophy of cervix.....	2							2
Hypochondriasis.....		1						1
Hysteria.....			1					1
Lacerated cervix.....	12	1						13
Lacerated cervix and endometritis.....	1						2	3
Lacerated cervix and perinæum.....	3						3	6
Lacerated cervix and perinæum with cystocele.....	1							1
Lacerated perinæum.....	4						1	5
Lacerated perinæum and endometritis.....	1						1	2
Laceration of perinæum and recto-vaginal wall.....	1							1
Laceration of perinæum and hæmorrhoids.....	1							1
Leucorrhœa.....	2							2
Malaria.....	1							1
Mania.....			1	1				2
Menorrhagia.....		1						1
Metrorrhagia.....	1	1						2
Metritis.....	1	3						4
Nephritis.....		1						1
Neurasthenia.....		5	1				1	7
Neuritis, spinal.....			1				1	2
Nymphomania.....						1		1
Osteo-chondro-fibro-myoma uteri.....				1				1
Osteoma of innominate bone.....				1				1
Ovarian cystic tumor.....	5		1	2				8
Ovarian cystic tumor, double.....	1							1
Ovaralgia.....		1						1
Ovaritis.....		2	1					3
Papilloma of bladder.....		1						1
Peritonitis, acute pelvic.....		1					1	2
Peritonitis, chronic pelvic.....			1		1	1		3
Peritonitis, tubercular.....								
Phantom tumor.....	1							1
Phthisis pulmonalis.....		1	3					4
Poliomyelitis.....				3				3
Pregnancy.....			2				1	3
Procidentia uteri.....		1						1
Procidentia uteri with carcinoma of cervix.....								
Prolapsed cystic ovary.....	1							1
Prolapsed uterus and ovaries.....	1							1
Puerperal septicæmia.....	1							1
Pyæmia.....	1							1
Pyosalpinx.....	1	1						2
Pyosalpinx, double.....	4					1		5
Pyosalpinx, double with ovarian abscess.....	3	1						4
Pyosalpinx, double with pelvic abscess.....	1							1
Pyosalpinx, tubercular.....		1						1
Recto-vaginal fistula.....			1					1
Retroflexion.....	2	5						7
Retroversion of uterus.....		5	5				3	13
Retroversion of uterus with persistent vomiting.....	1							1
Salpingitis.....		6		1				7
Salpingitis and ovaritis.....	2	5	3	1				11
Salpingitis and ovaritis with general debility.....							1	1
Sarcoma mammæ.....	1	1						2
Scirrhus mammæ.....				1				1
Stenosis of cervical canal.....	1							1
Subinvolution of uterus.....		2						2
Subinvolution of uterus with pelvic peritonitis.....							1	1
Submucous fibroid.....	1	1						2
Syphilis.....		1						1
Tuberculosis, general.....						1		1
Tumor of broad ligament.....		1						1
Typhoid fever.....	1							1
Undeveloped uterus and ovaries.....		1	1					2
Urethral caruncle.....	3		1					4
Vaginitis.....	1	1						2
Vaginitis with pneumonia.....	1							1
Vesico-vaginal fistula.....	1		1					2
Total.....	122	92	35	27	2	16	25	319



## 304 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Operations for fiscal year 1891-'92.

Diseases.	Cured.	Relieved.	Incurable or unrelieved.	Died.	In house.	Total.
<b>Laparotomies:</b>						
Abscess, pelvic	4	1		2	1	8
Abscess, pelvic, double	1					1
Abscess, tubo-ovarian				1		1
Ascites	1	1				2
Cyst, ovarian	4			1		5
Cyst, ovarian, double	1					1
Cyst, dermoid of ovary	1					1
Cyst of kidney	1					1
Cystic ovaries	5					5
Cinhotic ovaries	1					1
Extra uterine pregnancy				1		1
Exploratory incision		1				1
Fibroma uteri (ovariotomy)				2		2
Fibroma uteri (hysterectomy)					2	2
Fibro cystic tumor of uterus (hysterectomy)				1		1
Gall stones (cholelithotomy)					1	1
Hydrosalpinx	2					2
Ovarian neuralgia (cystic ovaries)					1	1
Puerperal septicæmia with ruptured uterus	1					1
Pyosalpinx, double	5					5
Pyosalpinx, double, with pelvic abscess	2					2
Pyosalpinx, with ovarian abscess	1					1
Pyosalpinx, with pelvic abscess	1					1
Retroversion of uterus					2	2
Salpingitis and ovariitis	1					1
Tubercular peritonitis				1		1
<b>Total</b>	<b>32</b>	<b>3</b>		<b>9</b>	<b>7</b>	<b>51</b>
<b>Abscess of anterior vaginal wall</b>	<b>2</b>					<b>2</b>
<b>Abscess, inguinal</b>	<b>2</b>					<b>2</b>
<b>Abscess, periproctal</b>	<b>1</b>					<b>1</b>
<b>Ascites</b>				2		2
<b>Carcinoma of cervix (amputated)</b>		2				2
<b>Carcinoma uteri</b>		2	1			3
<b>Cystocele</b>	1					1
<b>Dysmenorrhœa</b>	2	4				6
<b>Endometritis</b>	6	1				7
<b>Endometritis, fungoid</b>		1				1
<b>Endometritis, hæmorrhagic</b>	7					7
<b>Endometritis, suppurative</b>		1				1
<b>Endometritis and stenosis of cervical canal</b>	2					2
<b>Fissure in ano</b>	1					1
<b>Hæmorrhoids</b>	2					2
<b>Hypertrophy of cervix</b>	1					1
<b>Laceration, cervix</b>	14					14
<b>Laceration of cervix and endometritis</b>	1					1
<b>Laceration of cervix and perinæum</b>	4					4
<b>Laceration of perinæum</b>	11					11
<b>Laceration of perinæum and endometritis</b>	1					1
<b>Laceration of perinæum and hæmorrhoids</b>	1					1
<b>Leucorrhœa</b>	1					1
<b>Mucous polyp of cervix</b>	2	2				4
<b>Papilloma of bladder</b>		1				1
<b>Prolapsus uteri</b>			1			1
<b>Pyæmia</b>	1					1
<b>Recto-vaginal fistula</b>	2		2			2
<b>Rectocele and cystocele</b>				1		1
<b>Scirrhus mammae</b>		1				1
<b>Stenosis of cervical canal</b>	2					2
<b>Submucous fibroid</b>	1	1				2
<b>Urethral caruncle</b>	2					2
<b>Vesico-vaginal fistula</b>	1		1			2
<b>Total</b>	<b>69</b>	<b>16</b>	<b>5</b>	<b>3</b>		<b>93</b>

## OBSTETRICAL REPORT.

We desire to recommend the construction of two (so-called) "delivery rooms," and a room where examinations, dressings, etc., can be made, all of which may be built adjacent to, but separate from, the present cottage and connected with it by a closed corridor. Such rooms, separated from the lying-in rooms, and supplied with suitable appurtenances for artificial delivery and obstetrical operations, are a

part of every well-appointed lying-in hospital. The beds and operating table should be specially constructed for the purpose, upon the latest and most approved plans. The erection of a small building, containing such rooms and connected with the present building, would also render convenient the construction of better bathing facilities for the colored patients of the lying-in department than now exist.

Should your honorable board regard this improvement favorably, we will take pleasure in endeavoring to furnish a more definite report of plans and specifications, together with an approximate estimate of the cost of construction and furnishings.

Very respectfully,

J. WESLEY BOVÉE, M. D.  
A. F. A. KING, M. D.

Patients in hospital July 1, 1891:

Delivered.....	9
Undelivered.....	9
Admitted during the year.....	292

Total to be accounted for.....	310
Discharged after delivery or cure.....	280
Left undelivered.....	17
Died.....	1

In hospital July 1, 1892:

Delivered.....	9
Undelivered.....	3
Patients delivered during the year.....	257
Admitted after delivery.....	2
Abortions.....	7
Threatened abortions (averted).....	13
Retained placenta.....	2

Sex of children:

Males—	
White.....	51
Colored.....	93
Females—	
White.....	45
Colored.....	71
	260

Operations:

Forceps deliveries.....	10
At inferior strait.....	6
At superior strait.....	2
Podalic version.....	1
Laceration of perinaeum.....	30
Laparotomy.....	1
Mammary abscess, incision of.....	3
Breech presentation.....	5
Face presentation.....	1
Footling presentation.....	1
Shoulder presentation.....	1
Puerperal eclampsia.....	5
Postpartal hemorrhage.....	1
Antepartal hemorrhage.....	1
Phthisis pulmonalis.....	1
Polyhydramnios.....	1
Puerperal mania.....	1
Prolapsed funis.....	1
Sulphureted hydrogen in urine.....	2
Premature births.....	13
Ophthalmia neonatorum.....	2
Twins.....	3
Talipes valgus.....	1
Maternal mortality (puerperal septicæmia), cause of.....	1
Maternal mortality, rate of.....	3.003

# 306 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Infantile mortality:

Hemorrhagic diathesis.....	1
Inanition.....	3
Malformation.....	1
Maldevelopment of kidney.....	1
Premature birth.....	13
Shoulder presentation (version).....	1
Suppression of urine.....	2

22

## Still births:

Contracted pelvis, indicating forceps.....	1
Anencephalus.....	1
Placental apoplexy.....	1
Premature separation of placenta.....	3
One weak twin.....	1
Protracted labor.....	1
Puerperal eclampsia of mother.....	4
Twisting of funis.....	1
Twisting of funis round ankle in utero.....	1
Unknown.....	7
Violence to mother.....	3

24

## DISPENSARY REPORT.

Patients under treatment at date of last report.....	143
Patients received.....	1,411
Total to be accounted for.....	1,554
Cured.....	243
Relieved.....	488
Unrelieved or incurable.....	60
Unknown (did not return).....	197
Sent to hospital from dispensary.....	254
Not subject for treatment.....	160
Sent to other institutions.....	155
Under treatment July 1, 1892.....	152
Prescriptions compounded.....	4,814

## COLUMBIA HOSPITAL, Washington, D. C., July 18, 1892.

GENTLEMEN: I have the honor to submit my annual report of money received from pay patients during the fiscal year ending June 30, 1892, viz:

July.....	\$432.00	February.....	\$414.00
August.....	292.00	March.....	531.00
September.....	122.00	April.....	347.40
October.....	298.00	May.....	689.00
November.....	286.00	June.....	549.00
December.....	263.00		
January.....	221.00	Total.....	4,444.40

Very respectfully,

GEORGINA F. POPE,  
Superintendent.

The BOARD OF DIRECTORS, COLUMBIA HOSPITAL.

## COLUMBIA HOSPITAL, Washington, D. C., July 18, 1892.

GENTLEMEN: The committee on personal property respectfully report that the record of the property of the hospital has been properly kept.

All articles purchased for the use of the institution have been recorded and credit given for all that has been disbursed.

Inspection has been made whenever required, and worn-out and unserviceable either destroyed or devoted to other uses.

The property of the hospital is well cared for.

Very respectfully,

JOHN T. MITCHELL,  
Chairman of Committee on Personal Property.

The BOARD OF DIRECTORS.



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 307

COLUMBIA HOSPITAL, Washington, D. C., July 19, 1892.

GENTLEMEN: I have the honor to submit for the information of the Commissioners of the District of Columbia the following report of receipts and disbursements on account of Columbia Hospital for Women and Lying-in Asylum during the fiscal year ending June 30, 1892, with an estimate of the amount required for the support of the hospital during the fiscal year ending June 30, 1894.

	United States appropriation for support and maintenance, 1892.	Pay-patient fund.	Total.
RECEIPTS.			
By balance on hand July 1, 1891.....		\$2, 920. 47	\$2, 920. 47
By amount appropriated by act approved March 3, 1891.....	\$20, 000. 00		20, 000. 00
By amount received from pay patients during the fiscal year ..		4, 444. 40	4, 444. 40
Total.....	20, 000. 00	7, 364. 87	27, 364. 87
DISBURSEMENTS.			
To amount expended during the fiscal year ending June 30, 1892, viz:			
1. Services.....	\$7, 662. 21	\$610. 50	\$8, 272. 71
2. Marketing.....	2, 853. 79	633. 66	3, 487. 45
3. Use of telephone.....	61. 60	20. 00	81. 60
4. Gas.....	756. 14	56. 00	812. 14
5. Fuel and forage.....	1, 647. 59		1, 647. 59
6. Ice.....	370. 55		370. 55
7. Groceries and provisions.....	3, 276. 22	522. 33	3, 798. 55
8. Improvements and repairs.....	533. 17	98. 50	631. 67
9. Furniture and housekeeping supplies.....	912. 74	369. 80	1, 282. 54
10. Books, journals, stationery, and printing.....	105. 71	219. 14	324. 85
11. Medical and surgical supplies.....	1, 665. 21	280. 89	1, 946. 10
12. Insurance.....		51. 25	51. 25
13. Incidentals.....	155. 07	394. 89	549. 96
Total amount expended.....	20, 000. 00	3, 256. 96	23, 256. 96
July 1, 1892, balance on hand.....		4, 107. 91	4, 107. 91
Total.....	20, 000. 00	7, 364. 87	27, 364. 87

## ESTIMATE.

For the necessary support and maintenance of the hospital for the fiscal year ending June 30, 1894, the sum of \$20,000 will be required.

I am, with respect, your obedient servant,

JNO. D. McCHESNEY,  
Treasurer.

The BOARD OF DIRECTORS, COLUMBIA HOSPITAL.

# J.

## REPORT OF INSPECTOR OF BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,  
November 16, 1892.

GENTLEMEN: I have the honor to submit herewith my annual report covering the transactions of this department during the fiscal year ending June 30, 1892, together with estimates and recommendations for the fiscal year ending June 30, 1894.

*Statement of permits issued from July 1, 1891, to June 30, 1892.*

Description.	Brick or frame.	No.	Value.
Dwelling.....	Brick.....	2,461	\$6,035,980
Private stables.....	do.....	90	127,835
Livery stables.....	do.....	11	19,765
Workshops and mills.....	do.....	25	34,250
Stores.....	do.....	43	171,275
Office buildings.....	do.....	16	425,675
Churches.....	do.....	10	174,500
Schoolhouses.....	do.....	2	271,500
Halls.....	do.....	4	124,000
Laundries.....	do.....	3	59,000
Repairs.....	do.....	656	772,946
Boiler house.....	do.....	1	1,000
Apartment house.....	do.....	1	5,000
Hospital.....	do.....	1	11,000
Carriage repository.....	do.....	1	3,000
Warehouse.....	do.....	1	7,000
Asylum.....	do.....	1	45,000
Car houses.....	do.....	2	115,000
Dwellings.....	Frame.....	456	508,825
Private stables.....	do.....	7	2,184
Livery stable.....	do.....	1	250
Stores.....	do.....	4	2,200
Churches.....	do.....	4	9,800
Office.....	do.....	1	150
Sheds.....	do.....	425	25,122
Repairs.....	do.....	574	136,247
Boiler locations.....	do.....	4	.....
Railings.....	do.....	590	.....
Awnings.....	do.....	124	.....
Vaults (35.277½ cubic feet).....	do.....	46	.....
Total.....	.....	5,565	9,088,504

One thousand and seventeen permits were issued during the year for the use of water for building purposes, the fees amounting to the sum of \$2,634.23; and building permits, the receipts from which amounted to the sum of \$12,081.67, making the total receipts derived through this office \$14,716.23, an excess in receipts of the preceding year of \$2,645.04.

By reference to the foregoing statement it will be seen that there have been erected 2,917 dwellings, 3,147 buildings of all classes, and 1,654 repairs and additions to existing buildings, an excess of 783 dwellings and 842 buildings of all classes and a decrease of 43 repairs and additions than the preceding year, while in value there is an excess of \$1,284,203.

In addition to the permits above enumerated there were issued 1,085 permits for miscellaneous purposes for which no fees were obtained,

consisting of renewals of parking railings, laying pavements within parking spaces and temporary structures for use of builders, in connection with new construction and extra occupancy of public space for building materials.

From the above statement you can readily see the rapid increase in the number and value of the private buildings, which is an evidence of the fact, often repeated by me in my former annual reports when urging you to increase the number of my assistants, that the private construction is at all times during the year so great that it will justify the employment of four additional inspectors to cover the field properly. Another fact urging me in asking you for additional force to my office is that the revenue derived from building permits is more than sufficient to cover the additional compensation of the men asked for. This year you see the receipts amount to nearly \$15,000, whereas the present expenses of the office are only \$9,155. The architectural work of the office is increasing in volume each year, and for a trifling expense, occasioned by the employment of a draftsman for a few months each year to assist the architect of the office, in this item there is a saving of \$10,000 per annum, which would be paid in commissions were the work done by outside parties.

The importance of this office is universally acknowledged, and want of proper inspection of construction is only appreciated when a collapse occurs in construction; then official excuses can only be given asserting the cause as due to the insufficient force of the inspector's office. You are respectfully asked to consider the fact that there are only two assistant inspectors for building construction, and their time is constantly taken up not only in actual inspections, but in attending to numerous complaints as to encroachments on building lines, illegal occupancy of frame structures, and the correction of house-numbering.

The inspector of elevators has his time fully occupied looking after elevators of the city which require by law periodical inspection and also the location of steam plants, and I unhesitatingly say that the duties assigned my assistants are promptly attended to and are conscientiously performed. The inside work of this office you must concede has increased with the development of the city. My time is fully taken up by the inside office work, which is now miscellaneous in its character, namely, the issuance of permits, inspection of plans submitted for which permits are applied for, preparation of the estimates, and repairs and alterations of municipal buildings, 125 in number, to the details of which I am required by law to give my personal attention as well as to their care and supervision, the planning of the new municipal buildings, and the specifications therefor, and the numbering of new houses, so that but a few hours each day is all the time I can personally devote to the general field of construction.

There have been condemned and ordered taken down 17 brick buildings and 39 frame buildings; also 22 party walls as unfit for the purpose of adjacent new buildings.

The following notices have been served, viz:

To vacate dangerous buildings .....	18
To make good defective vaults .....	7
To make good defective construction in brick and frame buildings .....	79
To take out permits to build .....	23
To repair and make safe defective chimneys .....	27
To move buildings, sheds, and fences back to building line .....	87
To move building materials from streets and alleys .....	30
To connect down spouts with sewers .....	60
To protect open areas .....	6
To locate party walls .....	21



# 310 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

There have been 2,045 numbers given for new buildings and 206 notices served to change old numbers of dwellings. One hundred and ninety-two notices have been served to improve construction and material in new buildings.

There have been 427 written reports made of examinations of complaints and construction. There have been 9 cases taken to police court for violation of building regulations, in 6 of which conviction was had and fines were imposed. There have been 7 frame buildings moved from in side of fire limits to the outside of same.

The following work has been performed by the inspector of elevators during the year:

Elevators inspected during the year.....	117
Elevators condemned for repairs.....	87
Elevator inspections.....	358
Elevators constructed.....	15
Elevators in course of construction.....	7
Miscellaneous inspections by assignment of the inspector of buildings.....	365

## DISTRICT BUILDINGS.

Plans and specifications have been prepared in this office and there were erected during the year four eight-room, one four-room, and one high-school building; also, additions to No. 8 engine house and to the work house for females. One station house was built in West Washington also.

### POLK SCHOOL BUILDING—SECOND DIVISION.

Appropriation .....	\$27,000.00
(Site owned by District of Columbia.)	
Contract No. 1445 .....	\$24,000.00
Contract No. 1448 (heating) .....	2,152.00
Drafting.....	100.00
Drawing material.....	4.12
Superintendence.....	524.00
Blackboarding.....	44.44
Extra work.....	144.75
Printing.....	29.16
	<hr/>
	26,998.47
Balance .....	<hr/>
	1.53

### TAYLOR SCHOOL BUILDING—THIRD DIVISION.

Appropriation .....	\$35,000.00
Cost of site .....	\$8,475.50
Contract No. 1544 .....	22,955.00
Heating, contract No. 1474 .....	2,152.00
Drafting.....	104.00
Drawing material.....	4.13
Surveying .....	15.00
Printing specifications.....	29.16
Recording deed.....	3.00
Superintendence.....	792.00
Extra work on building.....	205.00
Blackboarding .....	89.44
Gas fixtures .....	11.75
	<hr/>
	34,835.98
Balance .....	<hr/>
	164.02

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 311

## EASTERN HIGH-SCHOOL BUILDING.

Appropriation .....		\$75,000.00
Contract No. 1441 .....	\$66,495.00	
Dry closet, contract No. 1447 .....	1,250.00	
Drafting .....	288.00	
Drawing material .....	5.20	
Extra work on building .....	3,077.62	
Fitting up laboratories .....	2,521.15	
Superintendence .....	1,136.00	
Blackboarding .....	190.64	
Printing .....	29.16	
		<u>74,992.77</u>
Balance .....		<u>7.23</u>

## WILSON SCHOOL BUILDING—SIXTH DIVISION.

Appropriation .....		\$35,000.00
Cost of site .....	\$9,000.00	
Contract No. 1464 .....	22,300.00	
Drafting .....	104.00	
Surveying .....	5.00	
Printing and specifications .....	25.92	
Heating, contract No. 1474 .....	2,152.00	
Superintendence .....	572.00	
Extra work on building .....	294.44	
Blackboarding .....	109.88	
Bell .....	49.50	
Recording deed .....	3.25	
Drawing material .....	4.13	
		<u>34,620.12</u>
Balance .....		<u>379.88</u>

## BROOKLAND SCHOOL BUILDING—SIXTH DIVISION.

Appropriation .....		\$12,000.00
Cost of site .....	\$2,475.00	
Contract No. 1543 .....	8,745.00	
Drafting .....	16.00	
Drawing material .....	1.58	
Surveying .....	10.50	
Printing and specifications .....	10.50	
Constructing well .....	97.25	
Pump for well .....	16.33	
Extra work on building .....	107.74	
Fencing, inclosing lot .....	427.20	
Blackboarding .....	37.72	
Bell, complete .....	49.50	
Recording deed .....	3.00	
		<u>11,996.82</u>
Balance .....		<u>3.18</u>

## LOGAN SCHOOL BUILDING—EIGHTH DIVISION.

Appropriation .....		\$35,000.00
Cost of site .....	\$8,486.25	
Contract No. 1572 .....	23,500.00	
Contract (heating) No. 1591 .....	2,152.00	
Drafting .....	84.00	
Drawing material .....	7.28	
Surveying .....	5.00	
Extra work on building .....	638.56	
Blackboarding .....	83.84	
Gas fixtures .....	11.75	
Recording deed .....	1.75	
Printing specifications .....	17.63	
		<u>34,988.06</u>
Balance .....		<u>11.94</u>

The eastern high-school building, in construction, appointment, and general fitting up, will compare with any building as a high school in the country. The eight-room and the four-room buildings are of the best character. With the addition of the six buildings erected this year and deducting those that have been abandoned, viz, the old Anacostia, the Chamberlin, and the Columbia Road building, there are now 98 school buildings. The Greenleaf and Potomac school buildings should, as soon as practicable, be replaced by new eight-room buildings of modern design and construction, as they have no conveniences, nor properly heated or ventilated. I beg also to call your attention to the situation of the Curtis building. It is placed but 4 feet from the west line of the lot, and having recently condemned and removed from the adjoining lot a dilapidated building, the ground is now vacant. If a building should be erected on the lot it would destroy the light of the west windows. For that reason the adjacent lot should be purchased, or Potomac street carried through the square, as was intended when the building was located near the west line of the lot. It is a matter of importance that some arrangement be made to prevent the damage that would be caused to the building as stated. The appropriation of \$2,000 for fireproof stairways in the Wallach school building was found, on account of the triple flights and the peculiar construction necessary to conform to the plan of the building, to be insufficient, as they can not be constructed for less than \$3,100. It will, therefore, be necessary to have an additional appropriation of \$1,100 before we can proceed with the work. I herewith append a statement of the number of school buildings, their situation, number of rooms, and cost of buildings and sites:



Name.	Location.	Style of building.	Size.	Description.	How heated.	When erected.	No. of rooms.	Value of site.	Value of building.	Total.
			Feet.					Dollars.	Dollars.	Dollars.
High school .....	O st., bet. 6th and 7th sts., NW	Brick...	197 by 75	Three stories and basement	Steam	1883	38	75,000.00	118,078.00	193,078.00
Abbott school .....	Cor. New York ave. and 6th st., NW.	do .....	102 by 42	do .....	Furnace	1876	9	5,158.00	20,000.00	25,158.00
Amidon .....	Cor. 6th and F sts., SW	do .....	81 by 69	Two stories and basement	do .....	1882	8	5,949.00	18,232.00	24,181.00
Grant .....	G st., bet. 21st and 22nd sts., NW.	do .....	92 by 88	Three stories and basement	Steam	1882	12	8,000.00	40,428.00	48,428.00
Bowen .....	Cor. 7th and E sts., SW	do .....	88 by 45	Two stories	Stoves	1867	8	1,672.00	5,000.00	6,672.00
Banneker .....	3rd st., bet. K and L, NW	do .....	81 by 69	Two stories and basement	Furnace	1882	8	3,500.00	20,000.00	23,500.00
Brent .....	Cor. 3rd and D sts., SE	do .....	81 by 69	do .....	do .....	1883	8	2,135.00	22,065.00	24,200.00
Cranch .....	Cor. 12th and G sts., SE	do .....	79 by 36	Three stories and basement	Steam	1872	6	622.00	16,000.00	16,622.00
Curtis .....	2nd st., bet. High and Market	do .....	97 by 79	do .....	do .....	1875	8	1,998.00	60,000.00	61,998.00
Force .....	Massachusetts ave., bet. 17th and 18th sts., NW	do .....	90 by 73	do .....	do .....	1879	12	(*)	36,215.00	36,215.00
Franklin .....	Cor. 13th and K sts., NW	do .....	148 by 79	do .....	do .....	1869	16	17,564.00	188,000.00	205,564.00
Gales .....	Cor. 1st and Mass. ave., NW	do .....	90 by 66	do .....	do .....	1881	12	10,000.00	40,116.00	50,116.00
Garnett .....	Cor. 10th and M sts., NW	do .....	90 by 73	do .....	do .....	1880	12	7,120.00	35,000.00	42,120.00
Greendale .....	4½ st., bet. M and N sts., SW	do .....	72 by 32	Two stories	Stoves	1869	4	1,500.00	8,000.00	9,500.00
Henry .....	P st., bet. 6th and 7th, NW	do .....	89 by 73	Three stories and basement	Steam	1880	12	25,000.00	45,000.00	70,000.00
Jefferson .....	Cor. 6th and D sts., SW	do .....	172 by 88	do .....	do .....	1872	20	18,896.00	50,000.00	68,896.00
Jno. F. Cook .....	O st., bet. 4th and 5th sts., NW	do .....	96 by 58	do .....	Furnace	1868	11	2,160.00	18,000.00	20,160.00
Lineoln .....	Cor. 2nd and C sts., SE	do .....	75 by 68	do .....	Steam	1871	10	3,460.00	20,000.00	23,460.00
Lovejoy .....	Cor. 12th and D sts., SE	do .....	60 by 35	Two stories and basement	Stoves	1872	6	(*)	10,000.00	10,000.00
McCormick .....	3rd st., bet. M and N sts., SE	do .....	55 by 45	do .....	Furnace	1870	4	407.00	7,000.00	7,407.00
Morse .....	R st., bet. New Jersey ave. and 5th st.	do .....	81 by 69	do .....	do .....	1883	8	4,578.00	23,670.00	28,248.00
Peabody .....	Cor. 5th and C sts., NE	do .....	90 by 90	Three stories and basement	Steam	1879	12	2,500.00	38,150.00	40,650.00
Potomac .....	12th st., bet. Md. ave. and E st., SW	do .....	72 by 32	Two stories	Stoves	1870	4	584.00	4,500.00	5,084.00
Randall .....	Cor. 1st and I sts., SW	do .....	90 by 72	Three stories	Furnace	1876	10	727.00	40,000.00	40,727.00
Seaton .....	I st., bet. 2d and 3d sts., NW	do .....	94 by 67	Three stories and basement	Steam	1871	11	11,325.00	35,000.00	46,325.00
Stevens .....	21st st., bet. K and L sts., NW	do .....	88 by 48	do .....	do .....	1868	10	4,944.00	38,321.00	43,265.00
Sumner .....	Cor. 17th and M sts., NW	do .....	94 by 69	do .....	do .....	1871	11	18,875.00	70,000.00	88,875.00
Thompson .....	12th st., bet. K and L sts., NW	do .....	91 by 28	do .....	Furnace	1877	6	2,906.00	8,000.00	10,906.00
Twining .....	3d st., bet. N and O sts., NW	do .....	81 by 69	Two stories and basement	do .....	1883	10	4,681.00	24,070.00	28,751.00
Wallach .....	P a. ave., bet. 7th and 8th sts., SE.	do .....	99 by 76	Three stories and basement	Steam	1864	12	14,517.00	40,000.00	54,517.00
Webster .....	Cor. 10th and H sts., NW	do .....	107 by 64	do .....	do .....	1884	12	15,000.00	41,053.00	56,053.00
Odd Fellows' Hall .....	Cor. 7th and G sts., SE	do .....	40 by 22	Two stories	do .....	1840	2	433.00	1,200.00	1,633.00
Do .....	High and Market (Georgetown).	Frame ..	58 by 30	Two stories and basement	do .....	.....	2	584.00	3,000.00	3,584.00
Threlkeld .....	Cor. Prospect and Leingan (Georgetown).	Brick...	75 by 29	do .....	do .....	.....	4	670.00	5,000.00	5,670.00
Dennison .....	S st., bet. 13th and 14th sts., NW.	do .....	92 by 89	Three stories and basement	do .....	1884	12	11,627.00	45,181.00	56,808.00

Name.	Location.	Style of building.	Size.	Description.	How heated.	When erected.	No. of rooms.	Value of site.	Value of building.	Total.
								Dollars.	Dollars.	Dollars.
Blair.....	1 st., bet. 6th and 7th sts., NE, Prospect ave., bet. 33d and 34th sts., NW.	Brick.....	70 by 84	Two stories and basement.....	Furnace.....	1884	8	3,500.00	22,071.00	25,571.00
Wormley.....		do.....	70 by 84	do.....	do.....	1884	8	3,750.00	23,495.00	27,245.00
Addison.....	P st., bet. 32d and 33d sts., NW.	do.....	54 by 98	do.....	do.....	1885	8	(*)	29,313.00	29,313.00
Maury.....	B st., bet. 12th and 13th sts., NE.	do.....	70 by 84	do.....	do.....	1886	8	3,382.00	25,798.00	29,180.00
Weightman.....	23d and M sts., NW.	do.....	76 by 83	do.....	do.....	1886	8	13,574.00	29,234.00	42,808.00
Towers.....	Cor. 8th and C sts., SE.	do.....	56 by 104	do.....	do.....	1887	8	(†)	24,999.00	24,999.00
Magruder.....	M st., bet. 16th and 17th sts., NW.	do.....	56 by 104	do.....	do.....	1887	8	(‡)	25,973.00	25,973.00
Carberry.....	5th st., bet. D and E sts., NE.	do.....	70 by 84	do.....	do.....	1887	8	6,456.00	29,980.00	36,436.00
Phelps.....	Vermont ave., bet. T and U sts., NW.	do.....	70 by 84	do.....	do.....	1887	8	19,466.00	24,521.00	34,987.00
Giddings.....	G st., bet. 3d and 4th sts., SE.	do.....	70 by 84	do.....	do.....	1887	8	7,188.00	24,952.00	32,140.00
Blake.....	N. Capitol, bet. K and L sts., NW.	do.....	70 by 84	do.....	do.....	1887	8	9,985.00	24,973.00	34,958.00
Bradley.....	13½ st., bet. C and D sts., SW.	do.....	70 by 84	do.....	do.....	1887	8	5,000.00	24,992.00	29,992.00
Smallwood.....	I st., bet. 3d and 4½ sts., SW.	do.....	70 by 83	do.....	do.....	1888	8	8,519.00	26,652.00	35,171.00
Adams.....	R st., bet. 17 st. and New Hampshire ave., NW.	do.....	70 by 83	do.....	do.....	1888	8	16,322.00	26,652.00	42,974.00
Jones.....	1st and L st., NW.	do.....	67 by 83	do.....	do.....	.....	8	10,500.00	25,396.00	35,896.00
Arthur.....	Arthur Place, NW.	do.....	67 by 83	do.....	do.....	.....	8	10,605.00	27,652.00	38,257.00
Corcoran.....	28th st., near M. NW.	do.....	68 by 82	do.....	do.....	.....	8	7,100.00	25,952.00	33,052.00
Briggs.....	22d and E st., NW.	do.....	67 by 83	do.....	do.....	.....	8	8,500.00	24,619.00	33,119.00
Lenox.....	5th st., bet. G st. and Va. ave.	do.....	70 by 83	do.....	do.....	.....	8	4,000.00	25,135.00	29,135.00
Berret.....	Cor. 14th and Q sts., NW.	do.....	50 by 100	Three stories and basement.....	do.....	.....	9	15,000.00	25,049.00	40,049.00
Bell.....	1st bet. B and C sts., SW.	do.....	67 by 83	Two stories and basement.....	do.....	.....	8	9,536.00	25,609.00	35,145.00
Madison.....	10th and G sts., NE.	do.....	70 by 84	do.....	do.....	1889	8	6,468.00	25,644.00	32,112.00
Jackson.....	Road st., bet. 30th and 31st.	do.....	70 by 84	do.....	do.....	1889	8	10,000.00	28,031.00	38,031.00
Garrison.....	12th st., bet. R and S, NW.	do.....	70 by 84	do.....	do.....	1889	8	8,250.00	24,540.00	32,790.00
Ambush.....	L st., bet. 6th and 7th sts., SW.	do.....	70 by 84	do.....	do.....	1889	8	11,750.00	23,885.00	35,635.00
Harrison.....	13th near V st., NW.	do.....	75 by 101	do.....	do.....	1890	8	17,644.00	27,796.00	45,440.00
Tyler.....	11th st. near G, SE.	do.....	70 by 84	do.....	do.....	1890	8	8,691.00	25,972.00	34,663.00
Phillips.....	N st., near 28th, NW.	do.....	70 by 84	do.....	do.....	1890	8	11,400.00	26,066.00	37,466.00
Slater.....	P st., near N. Capitol, NW.	do.....	70 by 84	do.....	do.....	1890	8	11,000.00	26,067.00	37,067.00
High school (colored).....	M, bet. New Jersey ave. and 1st st., NW.	do.....	80 by 147	Three stories and basement.....	Steam.....	1890	24	24,592.00	82,317.00	106,909.00
Logan.....	3d and G sts., NE.	do.....	70 by 84	Two stories and basement.....	Furnace.....	1891	8	8,486.25	26,513.75	35,000.00
Polk.....	Cor. 7th and P sts., NW.	do.....	70 by 84	do.....	do.....	1891	8	§	27,000.00	27,000.00
Taylor.....	7th, bet. F and G sts., NE.	do.....	70 by 84	do.....	do.....	1891	8	8,475.50	26,524.50	35,000.00
Eastern High school.....	7th, bet. C and D sts., SE.	do.....	86 by 164	Three stories and basement.....	Steam.....	1891	33	†	75,000.00	75,000.00

§ Part of High school site.

† Part of Summer site.

† Part of Wallach site.

\* Part of Curtis site.

## County school buildings.

Name.	Locality.	Description.	How heated.	When erected.	No. of rooms.	Value of site.	Value of building.	Total.
Conduit road		Frame, good condition	Stoves	1874	1	(*)	\$1,200	\$1,200
Ridge road		Frame	do.	1865	1	100	600	700
Tennallytown		Brick	do.	1882	4	500	4,000	4,500
Grant road		Frame, good condition	do.	{ 1864 } { 1880 }	2	200	1,200	1,400
Brightwood		Frame, good condition	do.	1865	2	500	1,200	1,700
Do		Frame, fair condition	do.	1865	1	150	600	750
Mount Pleasant		Frame, good condition	do.	1871	3	3,000	9,300	12,300
Mott	6th and Trumbull streets	Frame	do.	{ 1871 } { 1882 }	10	4,000	17,428	21,428
Near Soldiers' Home		do.	do.	1868	2	400	1,600	2,000
Near Fort Slocum		do.	do.	1867	1	150	500	600
Bunker Hill road		Brick, new	do.	1883	1	300	2,700	3,000
Old Bladensburg road		Frame, fair condition	do.	1867	1	100	500	600
Bladensburg pike		Brick, new	do.	1881	4	500	4,000	4,500
Near Benning's Station		Brick	do.	1883	4	400	8,935	9,335
Anacostia road		Frame, fair condition	do.	1864	1	200	600	800
Benning's road		Frame, good condition	do.	1864	4	200	5,135	5,335
Uniontown		Brick, new	do.	1881	6	1,500	6,837	8,337
Hillsdale		Frame, good condition	do.	1871	6	1,000	5,000	6,000
Giesboro		Frame	do.	{ 1864 } { 1877 }	2	300	1,000	1,300
Hamilton road		do.	do.	{ 1865 } { 1887 }	4	200	3,760	3,960
Murdock road		Vacant lot	do.			150		150
Colored Orphans' Home		Brick	do.			(†)	40,000	40,000
Burrville		do.	do.	1888	1	435	1,750	2,185
Brightwood		do.	do.	1888	4	670	8,923	9,593
Monroe	Steuben, between 6th and 7th extended.	Brick, 70 by 84, 2 stories and basement	Furnace	1889	8	3,150	23,988	27,138
Birney	Hillsdale	Frame	Stoves	1889	4	1,200	6,926	8,126
Good Hope		do.	do.	1889	2	750	4,462	5,212
Van Buren	Jefferson street, Anacostia	Brick	Furnace		8		24,864	24,864
Wilson	Central street, Meridian Hill	Brick, 70 by 84, 2 stories and basement	do.	1891	8	9,000	26,000	35,000
Brookland			do.	1891	4	2,475	9,525	12,000

\*United States ground.

† Unoccupied.

‡ Orphan's Home.



## 316 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## SUMMARY.

Total number of school buildings .....	98
Total number of school rooms .....	763
Total value of sites .....	\$595,840.75
Total value of buildings .....	2,408,185.25
Aggregate value .....	3,004,026.00

*School repairs.*

Appropriation .....	\$24,000.00
First division .....	\$3,351.62
Second division .....	3,575.72
Third division .....	4,201.83
Fourth division .....	2,167.19
Fifth division .....	2,906.65
Sixth division .....	3,612.24
Seventh division .....	1,954.71
Eighth division .....	2,053.10
Colored high school building .....	140.27
	23,968.33
Balance .....	31.67

The appropriation for repairs to school buildings, on account of the great number of them, the greater portion of them being large and expensive buildings, it is necessary to keep them up and preserve them from decay, and it being a necessity in that particular, the appropriations have been properly expended for that purpose. There is a great number of the new buildings that should be kalsomined, which would not only improve their appearance, but be more pleasant to the eyes of the pupils, as the walls are coated expressly for that finish. For the reasons given the repair appropriation should certainly not be less than the amount asked for, viz, \$30,000.

*Station house in Georgetown.*

Appropriation .....	\$29,000.00
Cost of site .....	\$8,500.00
Contract No. 1563 .....	19,773.00
Drafting .....	104.00
Printing .....	17.02
Surveying .....	5.00
Recording deed .....	1.50
Iron water-closets .....	360.00
Extra work on building .....	155.00
Whitewashing .....	15.00
Gas fixtures .....	68.75
	28,999.27
Balance .....	.73

*Repairs to police station houses.*

Appropriation .....	\$2,500.00
No. 1 precinct .....	\$839.62
No. 2 precinct .....	260.07
No. 3 precinct .....	227.31
No. 4 precinct .....	175.43
No. 5 precinct .....	711.83
No. 6 precinct .....	70.53
No. 7 precinct .....	54.65
No. 8 precinct .....	81.98
No. 9 precinct .....	71.80
Anacostia precinct .....	6.00
	2,499.22
Balance .....	.78

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 317

The nine station houses are, since the new station has been completed in the seventh precinct and the third and fifth improved by additions, an improved and well-adapted class of buildings. On account of the prisoners putting articles in the water-closets, thereby constantly obstructing the sewers, I ask for an appropriation of \$3,000 for the next year. It will be necessary to have this amount to keep the buildings in a good state of preservation and for the comfort of the men and prisoners, and to keep the plumbing in good condition. The wear in the stables is another constant expense.

## Repairs to engine houses.

Appropriation .....		\$3,000.00
Engine house No. 1 .....	\$384.95	
No. 2 .....	233.30	
No. 4 .....	563.27	
No. 5 .....	229.85	
No. 6 .....	197.84	
No. 7 .....	794.55	
No. 8 .....	100.09	
Truck A .....	280.53	
Truck B .....	70.72	
Truck C .....	141.69	
		2,996.98
Balance .....		3.02

## Addition to No. 8 engine house.

Appropriation .....		\$800.00
Excavation and brick work .....	\$390.00	
Wood, tin, iron-work and painting .....	383.59	
Whitewashing .....	13.00	
		786.59
Balance .....		13.41

The fire department buildings are in a good condition; but, on account of the severe usage in the engine rooms and stable, there is a constant expense to keep them up, and also to keep the houses in all parts in a presentable condition and comfortable for the men and horses it will require, as I have stated, the sum of \$3,500.

## Addition to workhouse for females.

Appropriation .....		\$25,000.00
Examination of prisons outside of the District of Columbia .....	\$43.61	
Drafting .....	136.00	
Drawing material .....	4.74	
Printing specifications .....	31.80	
Contract No. 1594 .....	24,754.00	
Extra work on building .....	29.50	
		24,999.65
Balance .....		.35

## Repairs to market houses.

Assigned from contingent fund .....		\$923.58
Western market .....	\$535.83	
Eastern market .....	351.46	
Georgetown market .....	36.29	
		923.58

The appropriation of \$800 annually has proved each year inadequate to keep the market houses in repair. They are large buildings and to keep the exterior from decay and the interior in a convenient and

# 318 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

working condition it will require not less than \$1,500 per year. I would also call your attention to the dilapidated condition of the main building of the Georgetown market house. When raised by the Board of Public Works it was severely racked and thrown out of perpendicular. The roof is so far gone that it needs a new one. But instead of expending money to patch and maintain it I would advise to take down the main building and reconstruct it one story high, as was done in 1879 with the rear portion. And I would earnestly advise it to be done, as this portion of the building is becoming unsafe. I estimate the cost to take down and rebuild at \$6,500.

## *Purchase of site in Georgetown, transfer of hay scales, and repairs and replacement of public scales.*

Appropriation .....	\$1, 250. 00
Transfer of scales in Georgetown to site owned by the District of Columbia .....	\$359. 50
Repairs to other public scales .....	82. 35
	<hr/> 441. 85
Balance .....	<hr/> 808. 15

## *Repairs to police court.*

Appropriation .....	\$800. 00
Expended .....	799. 93
	<hr/>
Balance .....	. 07

## *Designating alleys in Washington and for numbering houses in the suburban villages of the District.*

Appropriation .....	\$900. 00
Expended .....	769. 53
	<hr/>
Balance .....	130. 47

## *Repairing the damage caused by storm of November 23, 1891, by order of the Commissioners, the cost being taken from the emergency fund.*

Reform School .....	\$1, 757. 65
Industrial Home School .....	70. 50
Grant School building .....	427. 12
	<hr/>
Total .....	2, 254. 77

Since my last report, in which the statement was made that the District contracted for the amount of appropriation, \$30,000, for the erection of the Emergency Hospital, the building has been completed and delivered over to the trustees in charge, and has been occupied since February last.

The following are the estimates for the year ending June 30, 1894, for the expenses of this office, the care of the District office building, and the repairs of the various buildings under the supervision of this office:

## Office of the inspector of buildings:

### Salary of—

Inspector of buildings .....	\$2, 400. 00
Chief clerk and architect .....	1, 600. 00
Assistant inspector of buildings .....	1, 200. 00
Assistant inspector of buildings .....	1, 000. 00
Assistant on fire escapes and elevators and other duties .....	1, 000. 00
Clerk .....	900. 00
Messenger .....	480. 00
Contingencies, books, blanks, stationery, and livery of horse .....	575. 00
	<hr/>
Total for office .....	9, 155. 00



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 319

## Care of District office building:

One steam engineer .....	900.00
One janitor .....	700.00
Three laborers, at \$1.50 per day, in all, 939 days.....	1,408.50
<b>Total for District office.....</b>	<b>3,008.50</b>

## Repairs to—

Public-school buildings .....	30,000.00
Police-station houses .....	3,000.00
Fire-engine and truck houses.....	3,500.00
Market houses.....	1,500.00
Hay scales.....	250.00
Police-court building.....	800.00
Interior of District office building.....	500.00

**Total for repairs..... 39,550.00**

In submitting the above estimates I have the honor to request, on account of the great amount of work required and the knowledge of the men to fit them for the duties, that you have the salaries of the two inspectors now receiving \$1,000 advanced to \$1,200.

The architect, who also has assigned to him the permit work and now receives \$1,600, should be advanced to \$2,000, and the clerk, now working for \$900, be advanced to \$1,200. Their services certainly justify the advance.

Very respectfully,

THOS. B. ENTWISLE,  
*Inspector of Buildings.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

# K.

## REPORT OF THE CORONER.

*Tabular statement of deaths certified by the coroner during the year ending June 30, 1892.*

### Willful violence:

#### Suicides—

By asphyxia.....	1
By drowning.....	3
By gunshot wounds.....	9
By incised wounds.....	1
By lacerated wounds.....	1
By narcotic poisons.....	7
By strangulation.....	4

#### Homicides—

By fracture of skull.....	2
By gunshot wounds.....	7
By infanticides.....	13
By incised wounds.....	1
By lacerated wounds.....	1
By punctured wounds.....	3

### Accidents and negligence:

Asphyxia.....	9
Burns.....	2
Concussion of brain.....	4
Cerebral hemorrhage.....	1
Drowning.....	29
Dislocation of neck.....	6
Fracture of spine.....	1
Fracture of skull.....	11
Gunshot wounds.....	2
Injuries at birth.....	3
Narcotic poisons.....	1
Railroad accidents.....	19
Stillbirth.....	75
Suffocation.....	2

### Diseases:

Asthma.....	2
Alcoholism.....	1
Anemia.....	1
Bronchitis, acute.....	3
Bright's disease.....	41
Bronchitis, capillary.....	26
Congestive chill.....	4
Cerebral effusion.....	1
Croup.....	4
Convulsions.....	7
Convulsions (infantile).....	13
Cholera infantum.....	27

### Diseases—Continued.

Congenital debility.....	55
Cerebral congestion.....	3
Cerebral hemorrhage.....	11
Cholera morbus.....	3
Dysentery.....	1
Dentition.....	4
Dropsy.....	3
Diphtheria.....	1
Diarrhea.....	10
Epistaxis.....	1
Entero-colitis.....	1
Gastro-enteritis.....	1
Gastritis.....	5
Heart disease.....	41
Hemorrhage from cord.....	2
Hepatitis.....	1
Hemorrhage from bowels.....	1
Inanition.....	22
Intestinal obstruction.....	1
Laryngitis.....	1
Meningitis.....	1
Marasmus.....	3
Malarial fever.....	2
Pulmonary congestion.....	2
Phthisis pulmonalis.....	23
Pericarditis.....	1
Pulmonary hemorrhage.....	9
Premature birth.....	9
Pericardial abscess.....	1
Pneumonia.....	28
Paralysis.....	4
Pyæmia.....	1
Protracted labor.....	1
Peritonitis.....	1
Rupture of heart.....	1
Rupture of spleen.....	1
Senile debility.....	7
Syphilis.....	1
Trismus nascentium.....	18
Typhoid fever.....	1
Uræmia.....	1
Unknown.....	5
Whooping cough.....	3

Male deaths.....	395
Female deaths.....	245

Total.....	640
------------	-----

*Causes of death, color, age, etc.*

Causes of death.	Total deaths.	White.		Colored.		Under 1 month.	Between 1 month and 1 year.	1 to 5 years.	5 to 10 years.	10 to 20 years.	20 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	70 to 80 years.	80 to 90 years.	90 to 100 years.
		Male.	Female.	Male.	Female.													
Zymotic diseases.....	74	8	5	31	30	1	42	8	2	5	1	5	...	3	5	1	1	...
Constitutional diseases.....	139	10	6	61	62	62	28	8	2	2	5	3	8	3	5	6	6	1
Local.....	169	40	20	66	43	10	34	10	1	1	9	19	27	22	23	13	...	...
Developmental diseases.....	35	3	1	18	13	29	5	1	...	...	...	...	...	...	...	...	...	...
Violence.....	143	76	15	37	15	12	6	1	5	27	27	17	14	14	12	6	2	...
Stillbirths.....	75	12	6	31	26	75	...	...	...	...	...	...	...	...	...	...	...	...
Unknown.....	5	...	1	2	2	5	...	...	...	...	...	...	...	...	...	...	...	...
Total.....	640	149	54	246	191	194	115	28	10	35	42	44	49	42	45	26	9	1

*Causes of death, color, age, etc.*

Causes of death.	Nativity.													
	Austria.	Africa.	Madura Island.	New England.	Total.	District of Columbia.	Other parts of United States.	Germany.	Scotland.	Russia.	Ireland.	Norway.	Switzerland.	Hungary.
Zymotic diseases.....				1	74	56	16				2			
Constitutional diseases.....					139	99	39				1			
Local diseases.....		1	1	1	169	76	70	9			10		1	
Developmental diseases.....					35	34	1							
Violence.....	1			2	143	67	54	9	3	1	3	1		2
Stillbirths.....					75	75								
Unknown.....					5	5								
Total.....	1	1	1	4	640	411	180	18	3	1	16	1	1	2

*Social relation.*

Sex and color.	Widow or widower.	Married.	Single.
White male.....	14	62	32
White female.....	14	16	5
Colored male.....	12	44	27
Colored female.....	11	17	12
Total.....	62	139	76

*Mortality by months.*

July.....	49	February.....	45
August.....	53	March.....	42
September.....	63	April.....	48
October.....	52	May.....	38
November.....	66	June.....	58
December.....	53	Total.....	640
January.....	73		



## RECAPITULATION.

Suicides .....	26
Homicides .....	14
Infanticides .....	13
Accidents and negligence .....	165
Diseases .....	347
Stillbirths .....	75

Total ..... 640

White deaths ..... 203 = 31.72 per cent.  
 Colored deaths ..... 437 = 68.28 per cent.

Total ..... 640 = 100.00 per cent.

## Occupations.

Occupations.	No.	Occupations.	No.	Occupations.	No.	Occupations.	No.
Agents .....	2	Contractor .....	1	Laborers .....	57	Prostitute .....	1
Artist .....	1	Collector .....	1	Laundresses .....	9	Porter .....	1
Baker .....	1	Chemist .....	1	Locktender .....	1	Restaurant keeper .....	1
Blacksmiths .....	3	Cooper .....	1	Merchants .....	4	Students .....	14
Barbers .....	3	Druggist .....	1	Midwife .....	1	Slate-workers .....	2
Butchers .....	2	Drivers .....	11	Mining engineer .....	1	Soldiers .....	8
Barkeepers .....	5	Dressmaker .....	1	Messengers .....	3	Servants .....	13
Bookkeeper .....	1	Dairyman .....	1	Machinist .....	1	Sailors .....	5
Bell boy .....	1	Engineers .....	3	None .....	331	Shoemakers .....	4
Bricklayers .....	2	Engraver .....	1	Nurse .....	1	Stenographer .....	1
Brakemen .....	3	Firemen .....	2	Optician .....	1	Stone-masons .....	4
Banker .....	1	Farmer .....	1	Painters .....	5	Tinner .....	1
Brewer .....	1	Glazier .....	1	Peddler .....	1	Teachers .....	2
Clerks .....	11	Grocers .....	2	Policemen .....	2	Upholsterer .....	1
Clergyman .....	1	Housekeepers .....	36	Physicians .....	2	Unknown .....	47
Cook .....	1	Hostler .....	1	Plasterer .....	1	Watchmen .....	2
Constable .....	1	Inventor .....	1	Printer .....	1		
Carpenters .....	3	Ironworker .....	1	Plumber .....	1	Total .....	640

# L.

## REPORTS OF INSPECTORS AND MEASURERS OF LUMBER.

WASHINGTON, D. C., *July 1, 1892.*

GENTLEMEN: I would most respectfully submit the following amount of lumber as measured by me for the year ending June 30, 1892:

	Feet.
From all sources, merchantable .....	7, 578, 455
From all sources, condemned.....	301, 651

Fees, \$2,364.03.

Measured for Order No. 40319.

Respectfully,

GEORGE Z. COLISON,  
823 Sixth Street, SW.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

*Yearly report of Edward J. Daw, lumber inspector for Georgetown, from July 1, 1891, to June 30, 1892.*

Date.	Lumber inspected.	Cost of inspection.		Expenses	Net cost of inspection.
		Per M.	Total.		
1891.					
	<i>Feet.</i>	<i>Cents.</i>			
July.....	652, 663	30	\$195. 79	\$22. 00	\$173. 79
August.....	209, 106	30	62. 73	7. 00	55. 73
September.....	441, 487	30	132. 44	13. 50	118. 94
October.....	256, 256	30	76. 86	7. 30	69. 56
November.....	245, 589	30	73. 67	7. 00	66. 67
December.....	184, 196	30	55. 25	4. 00	51. 25
1892.					
January.....	229, 273	00	68. 78	7. 50	61. 28
February.....	143, 106	30	42. 93	5. 00	37. 93
March*.....					
April.....	195, 708	00	58. 71	7. 00	51. 71
May.....	468, 686	30	140. 60	20. 00	120. 60
June.....	293, 960	30	88. 18	9. 00	79. 18
Total.....	3, 320, 030	.....	995. 94	109. 30	886. 04

\* No lumber measured or inspected.

EDW. J. DAW,  
*Inspector.*  
823

324 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

WASHINGTON CITY, *July 1, 1892.*

GENTLEMEN: I have the honor to report that I inspected and measured during the fiscal year ending June 30, 1892, 3,889,481 feet of lumber.

E. L. HARBAUGH.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

---

WASHINGTON, D. C., *July —, 1892.*

GENTLEMEN: I herewith respectfully submit a detailed statement of the operations of my office for the fiscal year ending June 30, 1892:

*Quantities and kinds of lumber measured and inspected.*

	Feet.
Yellow pine.....	7, 429, 320
Walnut.....	14, 571
Cherry.....	6, 614
Poplar.....	49, 075
Oak.....	28, 997
White pine.....	11, 478
Total.....	7, 450, 055
7, 450, 055 feet, at 30 cents per M.....	\$2, 262. 01

Very respectfully,

THOS. R. RILEY,  
*Lumber Inspector.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

---

WASHINGTON, D. C., *July 9, 1892.*

GENTLEMEN: I have the honor to report that I have measured and inspected 3,723,320 feet of lumber for the fiscal year ending June 30, 1892.

Respectfully submitted.

E. CHAMPLIN.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



M.

## REPORTS OF INSPECTORS AND MEASURERS OF FIREWOOD.

WASHINGTON, D. C., July 5, 1892.

GENTLEMEN: Please find inclosed statement of wood measured and inspected in Anacostia district from July 1, 1891, to June 30, 1892, inclusive.

Very respectfully,

A. W. EATON,  
*Inspector and Measurer of Wood  
for Anacostia District, District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

*Statement of wood inspected and measured in Anacostia district from July 1, 1891, to June 30, 1892.*

Date.	Pine.	Oak.	Total.	Cash received.
1891.				
July .....	<i>Cords.</i> 755 $\frac{1}{2}$	<i>Cords.</i> 46	<i>Cords.</i> 801 $\frac{1}{2}$	.....
August .....	945 $\frac{1}{2}$	76 $\frac{3}{4}$	1,022	.....
September .....	1,112 $\frac{1}{2}$	95 $\frac{1}{2}$	1,207 $\frac{1}{2}$	.....
October .....	335 $\frac{1}{2}$	107 $\frac{1}{2}$	442 $\frac{1}{2}$	.....
November .....	533 $\frac{3}{4}$	53	586 $\frac{3}{4}$	.....
December .....	153	18 $\frac{1}{2}$	171 $\frac{1}{2}$	.....
1892.				
January .....		3 $\frac{5}{8}$	3 $\frac{5}{8}$	.....
February .....	97	1 $\frac{1}{2}$	98 $\frac{3}{4}$	.....
March .....	166 $\frac{1}{2}$		166 $\frac{1}{2}$	.....
April .....	178	52 $\frac{1}{2}$	230 $\frac{1}{2}$	.....
May .....	430	35	465	.....
June .....	606	80 $\frac{5}{8}$	686 $\frac{5}{8}$	.....
Total .....			5,882 $\frac{1}{2}$	\$529.45

WASHINGTON, D. C., July 15, 1892.

GENTLEMEN: I most respectfully report that I have inspected and measured in the Potomac and Georgetown districts for the year ending June 30, 1892, 23,741 $\frac{1}{2}$  cords of wood.

Very respectfully, your obedient servant,

W. A. O'MEARA,  
*Inspector and Measurer, Potomac District.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

WASHINGTON, D. C., July 30, 1892.

GENTLEMEN: I have the honor to report that I have inspected and measured 838 cords of wood for the month ending July 31.

Most respectfully,

D. M. GOODAM,  
*Rock Creek District.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

N.

**REPORT OF INSPECTOR OF FUEL.**

WASHINGTON, D. C., *July 1, 1892.*

GENTLEMEN: I submit herewith my report for month of June. I have inspected and weighed 424 tons of coal, at 20 cents per ton, \$84.80; amount paid for horse and buggy, \$20.

I also submit my annual report to June 30, 1892. I have inspected, weighed, and measured 8,257 tons of coal, at 20 cents per ton, \$1,651.40, and 402 cords of wood, at 9 cents per cord, \$36.18; total amount received during year, \$1,687.58; amount paid for horse and buggy, \$240.

Very respectfully, etc.,

WM. M. DOVE,

*Inspector of Fuel, District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

O.

## REPORTS OF INSPECTORS OF FLOUR.

GEORGETOWN, D. C., *June 30, 1892.*

GENTLEMEN: I have the honor of handing you a detailed statement of the flour inspected by me since my appointment to this office January 21 of this year.

Month.	Family.	Extra.
	<i>Barrels.</i>	<i>Barrels.</i>
February .....	2,506	122
March .....	2,198	170
April .....	2,075	131
May .....	3,024	229
June .....	3,105	198
Total .....	12,908	850

Total, 13,758.

I think the efficiency of this office could be considerably increased if your honorable board could be induced to answer my communication to them of the latter part of March last, and have me furnished with a copy of the inspection laws now in force in this District.

I am, with much respect, your obedient servant,

F. D. SHOEMAKER.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

WASHINGTON, D. C., *July 26, 1892.*

GENTLEMEN: Inclosed please find my report showing the amount of fees received by me for the month of June, 1892, together with the expense incurred:

Fees .....	\$228.70
Expenses .....	59.36

I also give the amount of flour inspected in my department for the fiscal year ending June 30, 1892, viz, 137,464 barrels.

Very respectfully yours,

JAS. H. WELCH.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



P.

**REPORT OF COMMISSIONERS OF FLOUR INSPECTION.**

WASHINGTON, D. C., *July 14, 1892.*

GENTLEMEN: We herewith report that no official call has been made upon us during last term.

Yours, respectfully,

B. CHARLTON,  
W. H. GASKINS,  
G. W. CISSEL,  
*Flour Commissioners.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

Q.

## REPORTS OF MARKET MASTERS.

OFFICE EASTERN MARKET,  
Washington, D. C., July 15, 1892.

GENTLEMEN: I herewith transmit a detailed statement of the operations of this market for the fiscal year ending June 30, 1892.

The monthly collections of rent for the entire year have been the same, \$287.50, for each month. For the year as follows:

From—	Rate per month (each).	Total.
18 butcher stands .....	\$4. 50	\$972. 00
40 huckster stands .....	3. 00	1, 440. 00
7 butter stands .....	4. 00	336. 00
6 miscellaneous stands .....	4. 00	288. 00
4 bacon stands .....	4. 00	192. 00
4 fish stands .....	3. 00	144. 00
1 baker stand .....	4. 00	48. 00
Extra gas .....		30. 00
Total .....		3, 450. 00

NOTE.—The first nine months of the year were collected by the late market master, Mr. Robert H. Lusby.

Very respectfully,

B. F. GRAHAM,  
Market Master.

WASHINGTON, D. C., July 30, 1892.

The following are the receipts of the Western Market for the fiscal year ending June 30, 1892:

July, 1891 .....	\$513. 50	February, 1891 .....	\$522. 50
August, 1891 .....	522. 50	March, 1891 .....	521. 00
September, 1891 .....	522. 50	April, 1891 .....	521. 00
October, 1891 .....	516. 70	May, 1891 .....	531. 00
November, 1891 .....	532. 90	June, 1891 .....	527. 00
December, 1891 .....	540. 50		
January, 1892 .....	527. 00	Total .....	6, 298. 10

\$76.90 more than the receipts of last year.

There will be required for the proper support of the market for the next fiscal year \$1,680—\$1,200 for market master and \$480 for watchman, instead of the \$100 for laborer, which has been provided for heretofore.

I know of no other recommendations than those I made last year, that the market will require at least \$3,000 to put it in proper repair; and if this be done I can increase the receipts to at least \$7,000 per year.

Respectfully submitted,

J. ELDRIDGE BURNS,  
Market Master, Western Market.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

GEORGETOWN, *July 20, 1892.*

GENTLEMEN: I have the honor to transmit to you a statement of the operations of the Georgetown Market for the fiscal year ending June 30, 1892. Also the amount required for the conduct and support of the market for the fiscal year ending June 30, 1894:

## Class of stands:

Huckster .....	24
Butcher .....	18
Bread .....	6
Butter .....	6
Bacon .....	4
Tea and coffee .....	2
Total .....	60
Monthly rent .....	\$2. 16
Number rented .....	39

## RECEIPTS.

Rent of stands .....	\$1, 011. 64
Extra gas .....	7. 20
Rent of hall .....	65. 00
Sale of four fish stands .....	385. 00
	<hr/> \$1, 468. 84

## EXPENSES.

Salary of market master .....	\$900. 00
Salary of laborer at market .....	100. 00
Amount paid for gas .....	88. 95
	<hr/> 1, 088. 95
Balance .....	379. 89

*Estimates for the year ending June 30, 1894.*

Salary of market master .....	\$900
Salary of laborer at market .....	100
Fuel, gas and brooms .....	100
	<hr/> 1, 100

Very respectfully,

W. H. WILLIAMS,  
Market Master.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



**R.**

**SEALER OF WEIGHTS AND MEASURES.**

WASHINGTON, D. C., *November 1, 1892.*

GENTLEMEN: I have the honor to report that during the year ending June 30, 1892, I made 5,918 inspections of scales and measures, and the fees for said work amounted to \$3,577.21 and the expenses during this period of time amounted to \$2,867.88. I condemned 7 scales, 8 weights, and 8 measures.

I would again respectfully call attention to the necessity of legislation fixing a standard weight for many products which are now sold by measure in this city.

Very respectfully,

FRANK ALDRICH,  
*Sealer of Weights and Measures.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

S.

## REPORT OF THE HARBOR MASTER.

OFFICE OF THE HARBOR MASTER,  
Washington, November 7, 1892.

SIR: The following report of the operations of this office, and its expenditures for the fiscal year ending June 30, 1892, together with the estimates for the fiscal year ending June 30, 1894, is respectfully submitted:

Appropriation for fiscal year ending June 30, 1892.....		\$2, 600. 00
For salaries.....	\$1 380. 00	
Fuel.....	355. 76	
Building new wharf.....	151. 89	
Building house on wharf.....	86. 00	
Forage.....	83. 70	
Covering boiler.....	50. 00	
Boiler casing.....	43. 18	
Running water in office.....	28. 48	
Insurance on boat and office.....	22. 25	
Moving sunken scow.....	15. 00	
Repairs to boat.....	206. 00	
Miscellaneous.....	175. 00	
Total.....		2, 597. 26
Unexpended balance.....		2. 74

### *Estimates of appropriations for fiscal year ending June 30, 1894.*

One engineer.....	\$900. 00
One fireman.....	480. 00
One watchman.....	480. 00
Fuel.....	500. 00
Forage.....	100. 00
Miscellaneous.....	400. 00
Repairs to boat (new hull, etc.).....	2, 000. 00
Total.....	4, 860. 00

As will be seen in my report to the major and superintendent of the metropolitan police, the boat and its crew have rendered much valuable service during the past fiscal year. The demands for its use are yearly increasing, and to such an extent that I am compelled by a sense of duty to renew the recommendations of my former reports that a boat suitable for all purposes be promptly purchased and equipped. A suitable iron boat, with all the modern fire and police appliances, could be purchased for about \$15,000.

When the present boat was purchased it met the purposes for which it was intended, but with each year the duties have increased to such an extent, that to properly perform the duties of the office a new boat is indispensable, or the present boat will have to have a new hull and

undergo a general overhauling. In submitting these facts I would earnestly suggest for them a careful consideration, as this long-felt want should be supplied as soon as possible. In concluding this report, I desire to thank the Commissioners for the support they have given to this department. The employés of this department have each done well his share of work. I commend each of them to your most favorable consideration, and to each one I convey my sincere thanks. The following is a list of steam and tug boats plying upon the Potomac, also a tabulated statement, showing by months the arrival and departure of boats, together with specifications of cargoes carried.

Respectfully,

J. R. SUTTON,  
*Harbor Master.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

*List of steam vessels plying upon the Potomac.*

Name of boat.	Service.	Name of boat.	Service.
STEAMBOATS.		TUGBOATS—continued.	
Washington .....	Washington to Norfolk.	Ella Pierce .....	Towing on river.
Norfolk .....	Do.	Zila .....	Do.
Lady of Lake .....	Do.	Fannie Gilbert .....	Do.
Jane Moseley .....	Do.	Amanda Powell .....	Do.
Sue .....	Washington to Baltimore.	Chipox .....	Do.
Tygert .....	Do.	Occoquan .....	Do.
Maggie .....	Do.	W. S. Mohler .....	Do.
Wakefield .....	River landings.	Manervia .....	Do.
J. W. Thompson .....	Do.	Mizpah .....	Do.
Mattano .....	Do.	C. Holbrook .....	Do.
Chas. Macalester .....	Mount Vernon.	Hercules .....	Do.
City of Washington .....	Washington to Alexandria.	D. M. Key .....	Do.
George Leary .....	Excursions.	Anteros .....	Do.
Sam'l J. Pentz .....	Do.	Thos. Venner .....	Do.
Pilot Boy .....	Do.	Peerless .....	Do.
T. V. Arrowsmith .....	River landings.	Arlington .....	Do.
Geo. Law .....	Do.	Mars .....	Do.
River Queen .....	Excursions.	Kate Connor .....	Do.
Columbia .....	Washington to Alexandria.	Americus .....	Do.
W. W. Coit .....	Excursions.	Curfew .....	Do.
Mary Washington .....	Do.	Triton .....	Do.
Bartholdi .....	Do.	Wm. S. .....	Do.
Cecil .....	Do.	D. S. Stettson .....	Do.
Bell L. .....	Do.	John Alexandria .....	Do.
Little Nell .....	Do.	Chas. Brady .....	Do.
TUGBOATS.		Chesapeake .....	Do.
Jos. Zane .....	Towing on river.	Goldsmith Maid .....	Do.
Jas. Richards .....	Do.	A. P. Gorman .....	Do.
Templar .....	Do.	Gilmore Meredith .....	Do.
Gen'l Hunt .....	Do.	Geo. W. Pride .....	Do.
Sampson .....	Do.	Virginia Earman .....	Do.
Burdsell .....	Do.	Volunteer .....	Do.
Potomac .....	Do.	Dandy .....	Do.
Jas. Jackson, jr .....	Do.	Gen'l Dumont .....	Do.
		Wm. Orison .....	Do.
		Robt. Turner .....	Do.
		Debos Lenox .....	Do.
		Joe Blackburn .....	Police and harbor boat.



# 334 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Statement showing by months the material which composed cargoes of sailing vessels landing in the harbor of Washington during the year ending June 30, 1892.

Cargoes.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Asphalt.....tons.....		1,700	1,123		1,265	
Canned fruit.....cases.....			8,650	4,000	7,500	2,000
Cement.....barrels.....	7,956	2,004			2,800	
Coal (hard).....tons.....	8,070	6,890	7,205	9,362	12,356	7,990
Coal (soft).....do.....	8,200	2,020	8,830	7,038	9,680	1,120
Corn.....bushels.....		800		2,050	3,700	
Cedar posts.....number.....	500	1,000	900			
Fertilizer.....tons.....	220	106	385			
Ice.....do.....	19,703	26,383	14,496	14,631	9,133	3,627
Iron pipe (water).....do.....	250	150				
Lumber.....feet.....	3,935,700	3,165,000	2,188,000	3,755,000	3,983,000	3,714,000
Laths.....number.....	400,000	2,360,000	1,196,000	1,000,000	150,000	2,400,000
Melons.....do.....	11,000	48,715	15,250			
Oysters.....bushels.....			15,200	60,000	75,000	70,000
Plaster.....tons.....						6,100
Railroad ties.....number.....	300	500				
Stone.....tons.....	2,186	800	243	1,200	955	500
Shingles.....number.....	500,000	400,000	300,000	300,000	500,000	
Sweet potatoes.....bushels.....		137	255			
Wood.....cords.....	3,500	4,500	5,000	4,000	2,500	3,500
Salt.....tons.....	100					
White sand.....do.....	90	263	111	257	163	
Guano.....do.....		1,115				
Wheat.....bushels.....			2,300		800	1,400
Hay.....bales.....				500	500	
Ballisters.....number.....	10,000					

Cargoes.	Jan.	Feb.	Mar.	Apr.	May.	June.	Total.
Asphalt.....tons.....		1,881		950	1,400	1,800	10,119
Canned fruit.....cases.....			4,000		5,800	2,100	34,050
Cement.....barrels.....				950	800	3,000	17,510
Coal (hard).....tons.....	3,000	300	1,139	4,300	5,997	10,296	77,855
Coal (soft).....do.....				2,560	5,530	7,000	52,978
Corn.....bushels.....						3,200	9,750
Cedar posts.....number.....						1,950	4,350
Fertilizer.....tons.....							711
Ice.....do.....			4,213	3,041	14,500	17,862	127,889
Iron pipe (water).....do.....							400
Lumber.....feet.....	1,023,000	1,116,000	1,200,000	1,740,000	5,328,000	4,454,000	35,601,700
Laths.....number.....				300,000	1,250,900	990,000	10,046,900
Melons.....do.....							74,965
Oysters.....bushels.....	70,000	40,000	35,000	20,000	3,500		389,200
Plaster.....tons.....						200	6,300
Railroad ties.....number.....				1,000			1,800
Stone.....tons.....	455						6,339
Shingles.....number.....		186,500	170,000	271,000	321,000		2,947,500
Sweet potatoes.....bushels.....							392
Wood.....cords.....	500	900	2,000	1,750	5,000	3,500	36,650
Salt.....tons.....							100
White sand.....do.....				195	30	122	1,231
Guano.....do.....							1,115
Wheat.....bushels.....	1,600			1,600	1,200	1,500	10,400
Hay.....bales.....				500		500	2,000
Ballisters.....number.....				22,000			32,000

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 335

Statement showing by months the arrival of boats in harbor of Washington, together with specifications of cargoes carried during fiscal year ending June 30, 1892.

Cargoes.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	Total.
Asphalt.....		2	2		2			2		1	1	2	12
Canned fruit.....			3	2	3	1			2		3	1	15
Cement.....	9	1			1					1	1	1	14
Coal (hard).....	30	25	31	40	42	33	6	1	5	14	18	35	280
Coal (soft).....	25	12	27	23	31	9				18	22	27	194
Corn.....		1		3	3							3	10
Cedar posts.....	1	1	1									2	5
Fertilizer.....	1	1	3										5
Ice.....	16	21	12	12	10	4			3	3	13	13	107
Iron pipe (water).....	1	1											2
Lumber.....	32	38	21	27	32	24	7	6	10	20	56	49	322
Laths.....	1	6	3	2	1	3				1	4	4	25
Melons.....	15	35	20										70
Oysters.....			65	130	125	105	95	90	50	55	20		735
Plaster.....						2						1	3
Railroad ties.....	1	1								1			4
Stones.....	5	2	2	4	2	1	2						18
Shingles.....	1	1	1	1	1			2	2	2	3		14
Sweet potatoes.....		2	3										5
Wood.....	120	130	150	75	65	80	20	30	20	125	130	75	1,020
Salt.....	1												1
White sand.....	4	11	4	11	7					3	1	2	43
Guano.....		2											2
Wheat.....			3		1	1	1			1	1	2	10
Hay.....				1	1					1		1	4
Ballisters.....	1									1			2

Statement showing by months the departure of boats from harbor of Washington with specifications of cargoes carried during the fiscal year ending June 30, 1892.

Months.	Stone.		Compost.		Boats removed to keep docks and channel cleared.
	Vessels.	Tons.	Vessels.	Tons.	
July.....	6	3,300	26	3,200	50
August.....	4	850	35	4,200	35
September.....	2	580	17	2,600	23
October.....			8	1,100	25
November.....					8
December.....					32
January.....					4
February.....			3	500	5
March.....	1	230			15
April.....	1	250			22
May.....					32
June.....			2	220	25
Total.....	14	5,210	91	11,820	276

# T.

## REPORT OF STREET AND ALLEY CLEANING SERVICE.

WASHINGTON, D. C., *September 1, 1892.*

GENTLEMEN: In accordance with your instructions, I have the honor to submit herewith a statement showing the operations of this department for the fiscal year ending June 30, 1892, also an estimate of expenses for operating the department for the fiscal year ending June 30, 1893, together with certain suggestions and recommendations which are deemed for the best interests of this branch of the District service which I have been selected by you to superintend.

### AREA OF STREETS AND ALLEYS CLEANED, AND COST.

The area of improved streets and alleys swept and cleaned by contract, the number of cubic yards of débris removed, and the cost of same during the fiscal year 1892, are given in the following table:

Date.	Streets and avenues.			Improved alleys.		
	Area cleaned.	Cost, at 35 cents per 1,000 square yards.	Débris removed.	Area cleaned.	Cost at 29 cents per 1,000 square yards.	Débris removed.
1891.	<i>Sq. yards.</i>		<i>Cubic yds.</i>	<i>Sq. yards.</i>		<i>Cubic yds.</i>
July .....	17,747,903	\$6,211.76	8,644½	1,711,408	\$496.33	654
August .....	18,732,823	6,555.48	9,693	1,917,392	556.03	841½
September .....	19,365,185	6,778.09	11,560	1,995,145	578.59	793½
October .....	19,073,112	6,675.62	13,396½	1,884,620	546.52	709½
November .....	17,010,109	5,953.53	11,679	1,418,558	411.36	616½
December .....	17,391,755	6,087.12	8,419½	1,074,416	311.56	508½
1892.						
January .....	1,094,878	383.21	429	(*)		(*)
February .....	12,267,840	4,293.72	7,420½	909,626	263.78	702
March .....	10,774,102	3,770.92	4,803	550,205	159.56	420
April .....	15,208,048	5,322.85	6,910½	1,642,819	476.41	1,063½
May .....	18,187,255	6,365.53	7,714½	1,758,646	510.03	924
June .....	17,989,588	6,296.37	8,170½	2,133,606	618.72	1,012½
Total .....	184,842,598	64,694.20	98,841	16,996,442	4,928.89	8,245½

\* No work, owing to bad weather.

### PENNSYLVANIA AVENUE.

From August 19, 1891, to June 30, 1892, end of fiscal year, Pennsylvania avenue from the east side of the Peace Monument to the east side of Washington Circle, and Fifteenth street west, from Pennsylvania avenue to north side of New York avenue, were cleaned daily by hand in lieu of the daily sweeping by machine as formerly practiced. In ad-



dition the street was swept by machines once or twice per week as occasion seemed to demand. The following table shows the total area cleaned, force engaged, and cost of same:

Area cleaned .....square yards.. 31,437,527  
Dirt removed .....cubic yards.. 6,343

Nature of force.	No. of days.	Daily pay.	Total cost.
Days' work:			
Men.....	4,139	\$1.50	\$6,208.50
Carts.....	883	2.00	1,766.00
Foremen.....	260	3.00	780.00
Assistant foremen.....	301	2.50	752.50
Total.....			9,507.00

The area swept by machines was 10,829,571 square yards, which, at 35 cents per 1,000 square yards, cost \$3,790.35, but which cost is included in the table showing cost of cleaning streets and avenues.

*Removing snow and ice.*

Date.	Nature of work.	Cost.
January, 1892..	Removing snow and ice from streets and avenues .....	\$479.86
February, 1892..	do.....	193.96
March, 1892....	do.....	454.68
	Total .....	1,128.50

NOTE.—Cost calculated at market rate, with 10 per cent added.

UNIMPROVED STREETS AND ALLEYS.

The work of cleaning the unimproved streets and alleys of the cities of Washington and Georgetown, attending to complaints, cleaning sidewalks, gutters, etc., is performed by labor gangs in charge of foremen and assistant foremen, and employed and controlled directly by this department. It may be stated here that the labor gang engaged on Pennsylvania avenue is not included in the following table of force, cost, etc., it being deemed best to present that portion of the work by itself, as a detailed and exact statement of their work and its cost could be given. In relation to the other gangs no detailed statement of the amount of work performed during the present fiscal year can be given, as under my predecessor they were moved from one point of the city to another, and much time has been lost thereby, but which I have changed, as will hereafter appear. The following table shows nature of force, time of men, horses and carts, foremen, and assistant foremen, pay per diem, and cost:

Nature of force.	Number of days.	Daily pay.	Cost.
Foremen.....	727½	\$3.00	\$2,182.50
Assistant foremen.....	1,032½	2.50	2,580.62
Second assistant foremen.....	120	2.00	240.50
Horses and carts.....	2,600½	2.00	5,201.00
Laborers.....	9,658½	1.50	14,487.75
Water boys.....	291½	1.00	291.75
Total.....			24,983.62

The sweeping and cleaning of these unfrequented places is a work of far more importance than is often attached to it. The business thoroughfares and finely paved streets of our cities are not the sources of contagious disease, although they may not be swept as frequently, nor kept as clean as they ought to be, but the sanitary condition of a city depends largely upon the cleanliness or uncleanness of the alleys and unimproved portions of its territory. Believing that these often neglected places, because of their usually poor population and isolation, should be placed as nearly on a level with the more favored sections of the city in this respect, I soon after entering upon my duties inaugurated a system of treating these localities which has worked out very satisfactory results.

Dividing the cities of Washington and Georgetown into four districts, the northwest, northeast, southwest, and southeast, I placed in each district a gang of 10 laborers with 3 carts, under the supervision of a foreman and assistant foreman, holding the foreman responsible for work done in his district. Except on extraordinary occasions, when two or more of the gangs were concentrated and worked together, the men have never worked outside of their allotted divisions, thus becoming familiar with their respective fields of labor and all the better prepared to attend to any complaints and perform more promptly and intelligently any nature of work required of them.

In addition to the four labor gangs referred to there is one other gang permanently engaged in cleaning the unimproved alleys of the city, and in addition thereto, during the winter months, cleaning the snow and ice, also attending to complaints, etc. The area of the unimproved alleys to be cleaned aggregates about 300,000 square yards, and is gone over about twice per week at present, which would make about 7,000,000 square yards that this force cleans per annum.

During the fiscal year 220 complaints were received (104 as to streets and 116 as to alleys), of which but 142 needed attention. To attend to same the following table will show cost and amount of work done.

Nature of force.	No. of days.	Daily pay.	Total cost.
Laborers .....	298	\$1. 50	\$447. 00
Carts .....	105½	2. 00	211. 00
Assistant foremen .....	46	2. 50	115. 00
Foremen .....	46	3. 00	138. 00
Total .....			911. 00

Area cleaned .....square yards.. 215, 372  
 Loads removed.....cubic yards.. 2, 877

I trust that the next annual report of this office will show in detail the actual amount of work performed by all classes of labor and the cost thereof.

## LABOR ROLL FOR 1891-'92.

The following statement shows the time employed and the amounts paid superintendent, assistant superintendents, inspectors, etc.:

	From—	To—	No. of days.	Daily pay.	Cost.
Superintendent.....	July 1, 1891	Feb. 29, 1892	215	\$5.00	\$1,075.00
Do .....	Mar. 1, 1892	June 30, 1892	151	5.00	755.00
Assistant superintendent .....	July 1, 1891	do .....	363	4.50	1,633.50
Do .....	do .....	do .....	313	3.50	1,095.50
Inspector (avenues and streets) .....	do .....	do .....	364	3.50	1,274.00
Do .....	do .....	Oct. 28, 1891	120	3.50	420.00
Do .....	Oct. 29, 1891	June 30, 1892	246	3.50	861.00
Inspector (improved alleys) .....	July 1, 1891	July 31, 1891	27	3.00	81.00
Do .....	Aug. 1, 1891	June 30, 1892	304	3.50	1,064.00
Do .....	July 1, 1891	Dec. 15, 1891	144	3.00	432.00
Do .....	Dec. 16, 1891	June 30, 1892	187	3.50	654.50
Timekeeper .....	Aug. 4, 1891	Sept. 30, 1891	58	3.00	174.00
Do .....	Oct. 8, 1891	Oct. 31, 1891	24	2.00	48.00
Do .....	June 15, 1892	June 30, 1892	14	2.50	35.00
Messenger .....	July 1, 1891	Mar. 8, 1892	219	1.50	328.50
Do .....	Mar. 9, 1892	June 30, 1892	114	1.50	171.00
Ordered by Commissioners of the District of Columbia:					
Horse and buggy, assistant superintendent .....	July 1, 1891	Dec. 31, 1891	178	2.00	356.00
Do .....	Feb. 1, 1892	June 30, 1892	120	1.00	120.00
Horse and buggy, alley inspector .....	July 1, 1891	do .....	301	1.00	301.00
Sprinkler, furnished by F. M. Draney .....			12	3.00	36.00
Do .....			7	6.00	42.00
Total .....					10,957.00

The number and compensation of foremen, assistant foremen, laborers, etc., have been already given in a preceding table.

*Recapitulation of expense for fiscal year 1892.*

Cost of cleaning streets and avenues, 184,842,598 square yards, at 35 cents per 1,000 square yards .....	\$64,694.20
Cost of cleaning improved alleys, 16,996,442 square yards, at 29 cents per 1,000 square yards .....	4,928.89
Cost of cleaning Pennsylvania avenue by labor gang .....	9,507.00
Amount paid for labor on unimproved streets and alleys, gutters, sidewalks, cutting weeds, removing washings, and attending to complaints by citizens .....	24,983.62
Cost of removing snow and ice .....	1,128.50
Amount paid superintendent, assistant superintendent, inspectors, messengers, etc .....	10,957.00
	116,199.21
Amount paid out on account of contingent expenses for horse keeping and shoeing, printing, steel scrapers, street-car tickets, stationery, purchased tools, etc .....	2,206.92
Total .....	118,406.13

## STATEMENT OF ACCOUNT.

Amount appropriated for fiscal year 1892-'93 .....	115,000.00
Amount appropriated to cover deficiency .....	4,000.00
	119,000.00
Expended as per foregoing statements .....	118,406.13
Balance on hand and unexpended .....	593.87

In 1890 the total area of streets swept by this department was 162,703,191 square yards, in 1891, 187,529,058, and during the last fiscal year, 1892, the total number of square yards swept was 184,842,598. The decrease in the area swept in the past year was caused by the severity of the winter, especially January, 1892, in which but 1,094,878



square yards were cleaned, as against about 15,000,000 square yards swept during the month of January, 1891. While these figures show that a large portion of the 133 miles of paved streets and avenues in the two cities are swept, it is a fact that the cities have not been kept in as clean condition as they ought to have been, the insufficiency of the appropriation not warranting a larger expenditure of money under that head. The number of streets to be swept daily should in my judgment be largely increased by the addition of the following streets to the daily list, viz: Fourteenth street from New York avenue to Florida avenue; M street N., from Twenty-sixth to Thirty-sixth streets W.; Seventh street W., from Water street to Florida avenue; Ninth street W., from Pennsylvania avenue to Florida avenue; Connecticut avenue, from H street to Dupont Circle; Massachusetts avenue, from Ninth street W. to Dupont Circle; Rhode Island avenue, from Seventh street W. to Connecticut avenue; Vermont avenue from H street to Iowa Circle; New York avenue from Ninth to Fifteenth streets; Pennsylvania avenue, from Second street SE. to Eleventh street E.; and East Capitol street, from First to Eleventh streets. These are all business streets and largely traveled thoroughfares, and instead of being swept as at present scheduled should be swept daily, as recommended. But to do this will require an increase of appropriation, as over 200,000 square yards of surface will thus be added to the daily list, which under present contract prices, 24½ cents per 1,000 square yards, would make an additional cost of \$16,005. There are also other streets in the cities upon which the street-sweeping service should be increased by cleaning some of them three times a week instead of twice a week, as at present, and others now swept once a week made twice a week. Without going into details as to the streets referred to, I estimate that such additional sweeping would cost \$12,000, making a total necessary increase of \$28,000.

The city of New York expended for sweeping and cleaning the streets of that metropolis during the years 1890-'91, \$1,487,467.46, or on an average about 20 per cent more every month than is expended by this department in twelve months.

A relative amount of appropriation, taking into account the population of the two cities and the area of streets to be swept, would give more than a quarter of a million of dollars per year for sweeping and cleaning the streets of Washington and Georgetown.

While the weekly sweeping of the paved alleys is perhaps sufficient it must be understood that their area is constantly increasing, and will probably during the present fiscal year reach 20,000,000 square yards, and for the fiscal year 1894, if improved at the present rate, will amount to 25,000,000 square yards.

The work upon the unimproved streets and alleys is increasing rapidly owing to the increased building and the consequent demand for the opening up of new streets and alleys, particularly in the suburban sections, which under the terms of the appropriation have to be cared for.

In view of the foregoing statements, I respectfully submit the following estimates for the fiscal year 1893-'94:

For sprinkling, sweeping, and cleaning streets and avenues, based at 24½ cents per 1,000 square yards.....	\$75, 000. 00
For sprinkling, sweeping, and cleaning improved alleys, at 33 cents per 1,000 square yards.....	8, 500. 00
For hand-cleaning Pennsylvania avenue from First street to Washington Circle.....	12, 000. 00
For labor in cleaning unimproved streets and alleys, cleaning gutters, and attending to complaints of citizens, etc.....	25, 000. 00

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 341

Pay roll of superintendent, 1 assistant superintendent (also clerk), 1 assistant superintendent, 4 inspectors, and 1 messenger.....	\$11,800.00
For contingent expenses, stationery, rent, printing, horse keeping, horse hire, purchase of car tickets, tools, etc .....	2,500.00

In explanation of the above estimate, I desire to state that the amount estimated for street sweeping is based upon the proposal to clean 313,500,000 square yards. With the amount estimated for sweeping the improved alleys, 25,000,000 square yards could be cleaned. The estimate for labor in hand-cleaning on Pennsylvania avenue is based upon present actual cost. The amount estimated for labor on unimproved streets and alleys, etc., is based upon actual expenditure of fiscal year 1892. The estimate for superintendent, assistant superintendent (also clerk), assistant superintendent, four inspectors, and messenger is based upon the proposition of making them annual employés, in place of per diem employés as at present, and is divided as follows:

1 superintendent.....	\$2,400.00
1 assistant superintendent (also clerk).....	1,800.00
1 assistant superintendent .....	1,400.00
4 inspectors (\$1,400 each) .....	5,600.00
1 messenger .....	600.00
Total .....	11,800.00

That the employés in the foregoing list should be made annual is but just. As per diem men they are not entitled to any of the privileges and benefits that those known as annual employés enjoy, although they are just as permanently in the service as any other class. As a matter of fact, the men filling the positions indicated in the above list are annual if there are any, in this at least, that they have to be on duty each and every day of the year, Sundays and holidays included. If placed upon the annual roll, the only difference in their favor would be the fact that when they could be possibly spared for a day or two, or if sick, they would not lose their pay, which, as now classed, as per diem men, they do. To make them annual would not alter the hours of labor or free them from their daily duty as at present existing. This office must be kept open daily under any circumstances, and I respectfully urge that its employés be rated as annual and paid as indicated.

As an illustration, take the compensation of the superintendent of this department, whose pay is \$5 per diem. If he works 365 days in the year, his salary will amount to \$1,825. A 30-days' leave would take from this \$150, and should he fail to work the 52 Sundays \$260 more would be deducted, thus reducing his annual earnings to \$1,415 a year, or less than \$3.90 per diem. In other words, he is compelled to work 82 more days in a year than an \$1,800 clerk does in order to receive the same compensation. His first assistant receives \$4.50 per diem, or \$1,642 for 365 days. Take from him pay for the 82 days as above, and his yearly income would amount to but \$1,273.50; and so on, through the whole list of faithful and competent officials referred to. The pay they receive is not commensurate with the labor they perform, even if they worked but 283 days in the year, as department officials do; but necessity, on account of the nature of their duties, compels these men to work Sundays, and making their compensation annual would make no difference in this respect. I submit that not only should their pay be increased, but their salaries should be made annual, that they may be accorded the same privileges, so far, at least, as the 30 days' leave of absence is concerned, as clerks in Government



and District employ enjoy. And I most respectfully, yet earnestly, ask you to recommend and urge the propositions here made in your annual report to Congress.

I desire to present the following for your consideration and such action as you may deem necessary, and as in your judgment will remedy the evil. There are a large number of places on the streets along which steam-railway cars are run, in some instances extending for two or three squares, that are not only impassable for carriages, but sources of filth and disease. They can not be properly cleaned by this department because the railroads occupy the entire street and encroach upon the space allotted to pedestrians to such an extent that nothing but narrow footpaths remain. The gutters are usually filled with refuse matter of all kinds, and grass grows and decays where there should be good sidewalks. It would be impossible for this department to keep these places clean, even though Congress should appropriate a much larger sum than it does for street-cleaning purposes, because in some instances for squares the space on either side of the track is not of sufficient width to admit the entrance of horses and carts for the purpose of removing the accumulations. Complaints against the unsanitary condition of these places, especially during the heated season, have been frequent. We have done the best we could to remedy the evil, but I submit that this department should not be subjected to the expense of a work that should properly belong to the railroad corporations to perform. These corporations were granted the right of way, but no authority was given them to infringe on rights of citizens along the thoroughfares over which their roads pass, by permitting obstructions which create standing nuisances, or in cleaning their tracks to throw any debris they may find thereon into the streets adjacent. I would earnestly ask that in your forthcoming annual report you recommend that Congress enact laws making it obligatory on the railroad companies to keep these places in a clean and healthy condition, at their own expense, imposing upon them a heavy fine for failure to do so.

Another source of complaint and annoyance to this department arises from the haulings, by contractors, of dirt along the streets, and I would suggest that more stringent measures be adopted to compel such contractors to keep clean the thoroughfares over which they cart dirt from excavations of any kind. In many instances some of our finest streets have been so disfigured by the droppings and drippings from their carts and wagons that it has been absolutely impossible to properly sweep such streets. The dirt often is of such a nature that it becomes so firmly packed on the pavements as to make it impervious to anything short of a shovel and hoe.

In conclusion, I desire to say that if the law or regulations against throwing, placing, or sweeping of paper or other refuse of any kind or character into the public streets and alleys was more strictly enforced it would not only relieve this department of much unnecessary expense and trouble, but the streets and alleys would at all times present a much better appearance. The same may be said of the pernicious habit of throwing grass cuttings, vine trimmings, and decayed vegetable matter into the streets, which is not only unjust to the contractor for cleaning the streets, but a source of danger and trouble to the sewer department, by such debris being washed into the sewers and choking the same, thus endangering the public health of the city.

Yours, very respectfully,

A. H. S. DAVIS,  
*Superintendent.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



U.

ORDERS MADE BY THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA DURING THE FISCAL YEAR ENDED JUNE 30, 1892.

JULY 1, 1891.

*Ordered,* That the inspector of buildings cause the municipal hay scales now situated on Prospect street to be removed and set up on the space south of Georgetown market house, at an expenditure of not exceeding \$300 out of the appropriation for transfer of said scale.

---

*Ordered,* That, pursuant to the act of Congress approved October 1 1890, entitled "An act to authorize the Commissioners of the District of Columbia to amend and cancel the subdivision of part of square 112 known as Cook Park," the said subdivision is hereby canceled and annulled, all the owners whose property in said subdivision abuts on the avenue shown thereon having petitioned therefor.

---

JULY 6, 1891.

*Ordered,* That, from July 1, 1891, the contractor for repairing cuts in asphalt pavements be required to keep two gangs employed on repairs at all times, and that twice a month a list of cuts made in asphalt streets by plumbers and others be sent to said contractor, who will be required to have such cuts immediately repaired by a third gang.

---

JULY 13, 1891.

*Ordered,* That hereafter all vouchers for expenditures of appropriations for charitable and reformatory institutions and purposes which receive aid from the District of Columbia, shall be submitted to the superintendent of charities for review and approval, and when so examined and approved, be transferred by that officer to the auditor District of Columbia.

---

*Ordered,* That William P. Cole, purchaser of the hay scales at Park Hotel, on Seventh street near Florida avenue, is hereby authorized to remove the same with the foundation thereof to square 445 in rear of the Thyson House, under the supervision of the inspector of buildings, where said scales shall remain until otherwise ordered.

---

JULY 14, 1891.

*Ordered,* That the appropriation of \$16,000 for the relief of the poor during the fiscal year to end June 30, 1892, is hereby apportioned as follows:

Physicians to the poor .....	\$6, 720
Medicines for the poor and printing .....	3, 700
Central dispensary .....	2, 400

# 344 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Homeopathic dispensary, including medicines to homeopathic physicians to the poor .....	\$430
Aged Women's Home .....	300
Eastern Dispensary .....	450
Women's Dispensary .....	400
Mission School of Cookery .....	100
Balance not apportioned .....	1,500

JULY 20, 1891-

*Ordered,* That the plat providing for the route of the cable road of the Washington and Georgetown Railroad Company through parking on south side of space at intersection of C street and Indiana avenue NW., is hereby approved.

*Ordered,* That the Commissioners, considering themselves the legal successors to the board of public works, claim to have control of the streets of the District up to the building line of all lots, reservations, or squares, whether the property of the United States or of individuals.

JULY 23, 1891.

*Ordered,* That the order of July 14, 1891, apportioning the appropriation for the relief of the poor during the fiscal year to end June 30, 1892, is hereby amended by adding to the allotment for the physicians to the poor the sum of \$480, making the total amount apportioned on this account \$7,200, and leaving a balance not apportioned of \$1,020.

*Ordered,* That during the present fiscal year sidewalks laid under the permit system shall be of brick, asphalt tile, cement tile, artificial stone, and granolithic, and that the District shall pay one half the cost, provided that the total cost is no more than \$2 per square yard; and that if the cost is more than \$2 the District shall pay \$1 per square yard and the property owner the difference between \$1 per square yard and the cost of the sidewalk.

That advertisements be made at once for proposals to do such work where cement block, artificial stone, or granolithic pavement is used. That the lowest bid received for each kind of pavement be accepted, and that the citizen be allowed to make his choice of the different kinds of pavement, provided, that if a sheet pavement is used composed of concrete—as in the case of artificial stone or granolithic—the contractor be required to make division lines dividing the pavement into blocks, each block to contain no more than 4 square feet, unless the pavement be laid upon business streets, or where vaults are allowed to be laid, to the exclusion of the sewer, water, and gas pipes from the sidewalks.

JULY 30, 1891.

*Ordered,* That not to exceed \$750 be spent from appropriation for repairs to county roads, 1892, on First street near the Soldiers' Home grounds, with the understanding that this street will not be on the schedule for the next year.

AUGUST 7, 1891.

*Ordered,* That until October 1, 1891, the board of examiners of steam engineers may hold but one meeting a week.

---

*Ordered,* That the plan for the construction of the Washington and Georgetown Cable Railway over Tiber Creek sewer, at Second street and Pennsylvania avenue, is hereby approved, subject to such changes as may appear necessary during the execution of the work.

---

AUGUST 8, 1891.

*Ordered,* That the order of July 23, amending the order of July 14, 1891, apportioning the appropriation for the relief of the poor during the fiscal year to end June 30, 1892, is hereby amended by allotting to the Associated Charities the sum of \$250, leaving an unapportioned balance of \$770.

---

AUGUST 12, 1891.

*Ordered,* That an officer be detailed from the Metropolitan police force for the purpose of regulating the traffic on the James Creek Canal during the continuance of the dredging operations there, said officer to be under the control and supervision of the harbor master during said detail.

---

AUGUST 14, 1891.

*Ordered,* That the 6-foot sidewalk on Fourteenth street extended be paved with bricks laid at right angles to the curb, and that the same method be hereafter employed in laying brick pavements on sidewalks of like character.

---

AUGUST 20, 1891.

*Ordered,* That the health officer is hereby instructed to require the contractor for the removal of garbage to put on a sufficient number of wagons to remove the dead animals and garbage as required by his contract dated July 1, 1887, and that, in default of said contractor so doing within forty-eight hours after notice of this order, the health officer is hereby authorized to employ sufficient force and appliances to perform said service, the expense thereof to be charged against the appropriation for the removal of garbage.

---

AUGUST 21, 1891.

*Ordered,* That the auditor, the secretary of the board, and the property clerk are hereby appointed a committee to report as to the relative price and quality of school readers, slates, etc., proposals for which were received and opened on the 12th instant, and to recommend the awards of contracts.

---

AUGUST 22, 1891.

*Ordered,* That the high service be extended east on Prospect street to Thirty-third street, and north on Thirty-third street from Prospect street to N street, and south on Thirty-first street from N street, Georgetown, a total distance of 300 lineal feet, at estimated cost of \$98.



AUGUST 28, 1891.

*Ordered*, That hereafter all alleys recommended for paving under the compulsory-permit system be placed upon schedule for consideration before being ordered.

---

SEPTEMBER 2, 1891.

*Ordered*, That the following regulations are hereby made and promulgated for the maintenance of order and protection of persons and property at the free public bathing beach established pursuant to act of Congress approved September 26, 1890.

1. All persons using the beach for bathing purposes are requested to register their name in books kept for that purpose in charge of the housekeeper.

2. The privileges of the bathing beach shall be permitted only from sunrise until one hour after sunset.

3. All persons using this beach must wear proper bathing apparel such as will not be objected to by the superintendent of the beach.

4. Persons under 16 years of age not attended by guardian must not remain in the water more than one hour nor bathe more than once a day. The officer in charge of the beach may, whenever in his judgment it is necessary for the welfare of the bather or the convenience of the public, limit the time during which any person may use the beach or houses.

5. The throwing of sticks, stones, mud, or any other substance; the using of indecent or boisterous language, loud cries, false alarm of danger, fighting, mutilating or otherwise defacing any portion of the premises, indecent exposure or conduct, floating on logs, planks, etc., forcibly immersing or otherwise willfully annoying anyone, and diving from the spring-board before the rising of the previous diver to the surface, are hereby prohibited.

6. No dogs or other domestic animals shall be permitted on the beach premises.

7. No one but the housekeeper will be permitted to unlock any bath-house door. A numbered tag will be handed to some occupant of each room, and no one will be permitted to enter that room without his consent or the special permission of the housekeeper. The tag must be returned to the keeper when the room is reopened for the occupants after bathing.

8. Any person violating any of the foregoing regulations shall be subject to immediate expulsion from the beach and premises, and shall be excluded from the privileges thereof during the then pending bathing season, and to such other punishment as the law provides.

---

SEPTEMBER 4, 1891.

*Ordered*, That, in view of the default of the contractor for the removal of garbage to perform his contract, the health officer is hereby authorized, until otherwise ordered, to employ not to exceed forty teams for the collection of garbage and necessary means for its removal from the District at a cost not to exceed the following rates:

Five dollars and fifty cents per diem per team, including pay of a collector and a driver for each team employed in collecting and conveying garbage to the scows, from 6 o'clock a. m. until 6 o'clock p. m. each day, except Sunday.

Five dollars per round trip for use of each scow of capacity of at least 40 tons employed in the removal of garbage from the District.

Five dollars per round trip for use of tug boat in removing and returning each scow.

One dollar and twenty-five cents per diem each for four laborers and for such additional number as may be found necessary, with the approval of the health officer.

---

SEPTEMBER 8, 1891.

*Ordered*, That the sealer of weights and measures shall hereafter have general supervision of the municipal scales and fish wharves, and, as occasion may require, make report to the Commissioners respecting their condition and management, with such suggestions as he may deem advisable, with the view of maintaining or increasing the efficiency of those features of the public service.

---

SEPTEMBER 16, 1891.

*Ordered*, That the health officer of the District of Columbia will proceed to disinfect the public school buildings of the District of Columbia, as recommended in his communication to the Commissioners of the 14th inst.

---

SEPTEMBER 17, 1891.

*Ordered*, That the following sections of the order of July 26, 1889, respecting the appointment of normal school graduates as teachers, are revoked, viz:

That, in case of a surplus of the graduates of a former year being unemployed at the graduation of the next succeeding year, the graduates of the latter year should have preference, and so on under this rule.

That teachers heretofore employed in violation of the rule prescribed by the legislative act above cited should not be reemployed during the present year, unless all of the normal school availables have been exhausted.

---

SEPTEMBER 26, 1891.

*Ordered*, That in the matter of the liability of persons using push-carts to gather rags, bottles, etc., for junk dealers, the Commissioners hereby finally approve the opinion of Mr. Geo. C. Hazelton, attorney for the District of Columbia, of May 12, 1891, and request that the pending cases be not prosecuted.

---

SEPTEMBER 29, 1891.

*Ordered*, That hereafter plumbers and other persons authorized to make cuts in improved pavements will in all cases make the sides of the cuts vertical. In no case will the undermining of improved pavements be permitted.

---

OCTOBER 2, 1891.

*Ordered*, That the clerk of the Center Market shall be governed in his duties as prescribed by law, as follows:

It shall be the duty of the clerks of the several markets to lay off

and mark in convenient spaces the several pavements in and adjoining to and bordering on the market squares or open spaces or thoroughfares, and which may be used for the sale or exposure for sale of vegetables or other country produce, and any person or persons using any more of said space or spaces than may be assigned them by the said clerks shall forfeit and pay a sum of not less than \$5 or more than \$10 for any market day or less time they may use any such place. (Webb's Digest, Sec. 13, p. 262.)

And he shall also have power to require each farmer or gardener to keep clean the spaces allotted to him, either by cleaning the same before leaving or paying to the watchman appointed by the said clerk a reasonable amount to have it cleaned, not to exceed 10 cents for each one-horse wagon and 15 cents for each two-horse wagon. That the market clerk must see that the dirt left by the farmers and gardeners on the south side of B street, between Seventh and Twelfth streets, and on the north side of B street, from Tenth street to Twelfth street NW., is swept into piles convenient to be carted away each week day. Also that the market clerk shall make true and correct reports monthly of the amount of money so collected and how the same has been expended.

---

OCTOBER 8, 1891.

*Ordered*, That the following regulations are hereby made with reference to the crossing of the Long Bridge by vehicles drawn by horses, and shall remain in force until otherwise ordered, viz:

1. No such vehicle shall be permitted to cross that portion of the bridge which is over the Washington channel at a faster gait than a walk.

2. Notices painted on boards in letters large enough to be easily read by drivers of such vehicles shall be posted by the Baltimore and Potomac Railroad Company on each end of said bridge.

---

OCTOBER 13, 1891.

*Ordered*, That the order of August 30, 1889, relative to rates to be charged for making plumbers' cuts, is hereby amended by inserting after the words "paved streets" the words "avenues, alleys, and paved public spaces."

---

OCTOBER 16, 1891.

*Ordered*, That regulation No. 1 of the order of October 8, 1891, relative to the crossing of the Long Bridge by vehicles drawn by horses, is hereby modified so as to also apply to that portion of the bridge over the western channel of the Potomac River.

---

OCTOBER 17, 1891.

*Ordered*, That no officer, clerk, or employé of the District of Columbia shall at any time solicit contributions from other officers, clerks, or employés in the District service for a gift or present to those in a superior official position, nor shall any such officials or clerical superiors receive any gift or present offered or presented to them as a contribution from persons in the District employ receiving a less salary than themselves; nor shall any officer or clerk make any donation as a gift or present to any official superior. Every person who violates this section shall be summarily discharged from the District employ.



OCTOBER 20, 1891.

*Ordered,* That hereafter whenever a water main shall be laid in any street, avenue, alley, highway, road, or space outside of the limits of Washington and Georgetown, so as to provide a supply of water for land not subdivided into building lots at the time of completion of the main, the water-main tax shall be assessed at the rate of  $1\frac{1}{4}$  cents per square foot to a depth of 140 feet from the line on which the said land abuts upon the street, avenue, alley, highway, road, or space in which the main shall be laid.

OCTOBER 22, 1891.

*Ordered,* That paragraph 14, section 4, of the building regulations is hereby amended by striking out all after the word "alley" and inserting in lieu thereof "less than fifteen feet in width." On alleys 15 feet and less than 35 feet in width, an open space must be preserved by building back on each side of alley half the width required to form an open space of 30 feet.

OCTOBER 23, 1891.

*Ordered,* That article 8 of the Police Regulations in and for the District of Columbia is hereby amended by adding to section 3 thereof the following:

Carriage steps when authorized shall not exceed in dimensions  $3\frac{1}{2}$  feet by 20 inches nor 8 inches in height, and in no case shall extend beyond the inner line of the curb.

No sign or advertisement, of any sort shall be built, erected, or hung upon or from the roof or front of any building in the cities of Washington and Georgetown to project more than 3 feet 6 inches beyond the building line, nor shall any box, board, or other sign or frame of any kind for a sign be set up, around, or against any tree, lamp-post, or other post, pole, or other object in said cities, and any sign now erected, or that may be erected, on the top of or on the street front of any building, or attached to any awning frame or other structure attached to such building shall be taken down and removed when rotten or unsafe.

Awning posts and frames shall be of iron. The posts shall be set in stone or iron blocks not less than 6 inches within the outer edge of the curb and the frames must be firmly secured to the building; and in no case shall awnings now or hereafter erected interfere with street lamps or trees. On parked streets awnings may be used in front of business property to the outer edge of parking, but in no case to exceed the distance of 15 feet from the building line. No part of the frame or canvas of an awning shall be at a less height than 8 feet from the sidewalk.

All buildings of a public character already erected or hereafter built, such as halls, churches, and places of amusement and instruction, the doors shall open outwards and remain open when the building is occupied, except fly doors opening both ways, which may be kept closed. The hall doors, stairs, seats, and aisles shall be so arranged as to facilitate egress in cases of fire or accident; and to afford the requisite and proper accommodation for the public protection in such cases, all aisles and passageways in such building shall be kept free from camp stools, chairs, sofas, and other obstructions during any services, exhibition, lecture, performance, concert, ball, or any public assemblage.

In all theaters and public places of amusement there shall be kept attached to a plug or water attachment, to be furnished by the owners or lessee for that purpose, sufficient hose of the size used by the fire department to extend to the furthest limits of said place of amusement, and said hose shall be kept at all times in good order and repair and ready for immediate use.

No box nor pit for manure shall be placed beyond the building line.

The penalties in section 8 of article 8 of the Police Regulations in and for the District of Columbia for violation of the provisions of section 3 of said article are hereby made applicable for violation of any of the provisions of this amendment.

OCTOBER 23, 1891.

*Ordered,* That the following schedule of limitations and provisions relative to the protection of portions of buildings beyond the building line is hereby adopted as the basis of the Commissioners' concurrence under act of March 3, 1891:

DISTANCE OF PROJECTION OUTWARD FROM BUILDING LINE. (To be measured from line of first story.)

Designation of projections.	Height of projections.	On business streets.*	On parked streets.			On unparked streets.				
			When park is 20 or more feet wide.	More than 70 feet wide.	70 feet and less wide.	More than 80 feet wide.	80 feet and less to 70 feet wide.	70 feet and less to 60 feet wide.	60 feet and less to 40 feet wide.	40 feet and not less than 15.
		Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.
Alley bridges.....	Must leave at least 12 feet clear above roadway.									
Areas§.....	Surface of pavement.	5		6½	6	5	5	4	3	2
Bases and water tables..	First floor above ground.		2 inches beyond building line, or any projection.							
Bay windows:†										
Right angled.....	Unlimited.....			4	4	4	4	3	2	
Not right angled.....	do.....			5	5	4	4	3	2	
Colonnades†.....	do.....	6								
Oriels†.....	Above first story, leaving at least 12 feet headway on streets less than 40 feet.	3		4	4	4	4	3	2	2
Porches (must not be enclosed by solid walls except by 10 inches of coping on platform.)	Unlimited.....			5	5	4	4	3	2	
Port cocheres†.....	One story.....		Subject to approval of Commissioners and Secretary of War.							
Show windows.....	do.....	3		3	3	3	3	3	2	
Steps, with or without porches or platforms.†§	First floor above ground.		12	10	10	6	4	3	2	2
Towers†.....	Unlimited.....	3		5	5	4	4	3	2	
Vaults.....	Under pavement..		May extend to curb line the full width of lot on business streets.* On all other streets they may extend to within 8 feet of outside of curb, provided they do not extend beyond 10 feet from building line. Vaults shall be securely covered with substantial flagging or arched with hard brick. The crown of the arch shall be at least 6 inches below the established surface of the footway, and any openings in the top of the vault shall be at inner edge of extreme wall and have a suitable covering placed thereon, to be kept securely closed when not in use. No grate or other fixture shall project above or be sunk below the established grade of the pavement.							
			No vault shall be constructed so as to interfere with any sewer, water pipe, manhole, gas pipe, tree, or other public work or improvement.							
			The area occupied shall be paid for at the rate of 15 cents per cubic foot. Pavements over vaults must be constructed at the expense or risk of owner or owners of abutting property.							

\* Business streets are as follows: Pennsylvania avenue, between Fourth street E. and Rock Creek; Seventh street W., the entire length; Ninth street W., from B street to New York avenue; F street N., from Sixth to Fifteenth street W.; Eleventh street, from B to New York avenue; D street N., from Sixth to Eleventh, W.; G street N., from Sixth to Fifteenth, W.; New York avenue, from Ninth to Fifteenth street W.; M street, from Rock Creek to Aqueduct Bridge; Thirty-second street, from M to Q; Fourteenth street W., north of B street N.

† On all streets 90 feet and wider, the sidewalk must be preserved by at least 12 feet. On all streets less than 90 feet and more than 70 feet wide, the sidewalk must be preserved by at least 10 feet. On all streets 70 feet and less wide, the sidewalk must be preserved by at least 8 feet.

‡ Bay and oriel windows and tower projections may be constructed to brick or stone buildings with frame of wood, if covered with metal, slate, tile, or other incombustible material, when approved as required by law.

§ Areas must be protected by metal railing at least 42 inches in height, and when they extend the entire width of any lot frontage, shall be protected by said railing with openings or gates not less than 3 feet wide. Proper protection, by metal or stone hand rails, shall be provided where steps are built over areas, or where steps exceed four in number, and for all platforms where areas exist. Basement and cellar steps shall be protected by railing like that required for areas, with openings or gates not less than 3 feet wide.

## WIDTHS OF PROJECTIONS.

Width of house.	Double projections.	Single projection.	Extent of front on building line to be preserved.	Width of house.	Double projections.	Single projection.	Extent of front on building line to be preserved.
<i>Feet.</i>	<i>Ft. In.</i>	<i>Ft. In.</i>	<i>Ft. In.</i>	<i>Feet.</i>	<i>Ft. In.</i>	<i>Ft. In.</i>	<i>Ft. In.</i>
12	.....	6 6	2 6	32	17 0	14 4	.....
13	.....	7 4	2 6	33	17 6	14 6	.....
14	.....	8 0	2 10	34	18 0	14 8	.....
15	.....	8 6	3 2	35	18 6	14 10	.....
16	.....	9 0	3 6	36	19 0	15 0	.....
17	.....	9 6	3 10	37	19 6	15 2	.....
18	.....	10 0	4 2	38	20 0	15 4	.....
19	.....	10 6	4 6	39	20 6	15 6	.....
20	.....	11 0	4 10	40	21 0	15 8	.....
21	.....	11 6	.....	41	21 6	15 10	.....
22	.....	12 0	.....	42	22 0	16 0	.....
23	.....	12 6	.....	43	22 6	16 2	.....
24	13 0	13 0	.....	44	23 0	16 4	.....
25	13 6	13 2	.....	45	23 6	16 6	.....
26	14 0	13 4	.....	46	24 0	16 8	.....
27	14 6	13 6	.....	47	24 6	16 10	.....
28	15 0	13 8	.....	48	25 0	17 0	.....
29	15 6	13 10	.....	49	25 6	17 2	.....
30	16 0	14 0	.....	50	26 0	17 4	.....
31	16 6	14 2	.....	51	26 6	17 8	.....

Two or more projections will be allowed on houses 24 feet or more in width. The increase in width of projection will be at the rate of 6 inches for each additional foot in width of house.

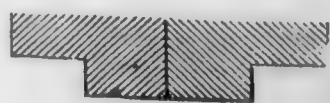
Single projections on houses more than 24 feet in width will increase at the rate of 2 inches for each additional foot in width of house.

On houses more than 50 feet in width a single projection must not exceed in width two-thirds of amount allowable in projection.

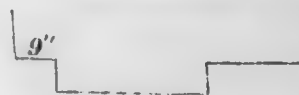
No projection of any kind less than 6 feet in width will be allowable.



On projections that are not at right angles with building line the width will be measured at a distance of 1 foot from the building line.



Two projections may cross a building line and combine, provided the total width does not exceed that of a single projection for a front of the size of the combined front.



There must be preserved a clear space of at least 9 inches between the party line and the outer wall of the projection.

On houses located on corners of public alleys, the wall located on alley may extend beyond the street building line forming one side of projection.



If a corner tower is built, the portion beyond the building line will be allowed in addition to the amount allowed other houses. The tower projection must not exceed 14 feet in width, except on buildings of a public character.

When a projection of any kind is 8 feet or less in width, it must not extend more than 4 feet beyond the building line, and no right-angle portion will extend more than 3 feet.

Fireplaces or chimneys built in projections must return to the building line before reaching roof.

## GENERAL PROVISIONS.

Structures or projections above or outside of the roof, such as domes, cupolas, pavilions, towers, spires, pinnacles, buttresses, lanterns, louvres, lutheran or dormer windows, skylights, scuttles, ventilators, cornices, and gutters shall be made or covered with cast or wrought iron, tin, copper, zinc, other metal, or stone, slate, brick, cement, or mortar, or other incombustible material.



OCTOBER 26, 1891.

*Ordered*, That article 8 of the police regulations in and for the District of Columbia is hereby amended by adding to the amendment of said article made October 23, 1891, the following:

No portion of any sign beyond the building line shall be less than 8 feet above the surface of the street.

No carriage step shall be erected or located beyond the building line unless a permit therefor shall first have been obtained from the inspector of buildings of the District of Columbia.

The penalties provided in section 8 of article 8 of the police regulations in and for the District of Columbia for violation of the provisions of section 3 of said article are hereby made applicable for violation of any of the provisions of this amendment.

The fee for permits for awnings shall be \$1 for each awning.

SEPTEMBER 14, 1891.

*Ordered*, That the following rules governing the purchase, distribution, and use of free text-books and supplies are hereby adopted:

That the superintendent of schools shall, as soon as possible, estimate the number of pupils in each grade who will probably attend the school during the school year beginning September, 1891; that he shall, with such numbers of pupils as a basis of reckoning, determine the number of books of each kind required, as also the quantities of other necessary articles required for the conduct of said schools in said grades, and report the same to the Commissioners.

That when the number of books and the quantities of supplies have been determined, bids shall be invited according to law for furnishing said books and said supplies, the contract to be awarded to the lowest responsible bidder, at the discretion of the Commissioners, according to law.

That books and supplies for free use shall be bought as books and other supplies have been bought for the schools in the past, on the requisition of the superintendent of schools, with the approval of the president of the board of trustees and of the Commissioners of the District.

That the different supervising principals shall make requisition for such books and supplies as may be needed in their schools upon their respective superintendents, which requisition, upon the approval of the superintendent in charge, shall be honored by the custodian, a strict account of which shall be kept by the superintendent.

That each supervising principal shall be held responsible for the care and return of all books ordered by him, and shall be held responsible for the economical use of all supplies ordered by him.

That the supervising principals may, in their judgment, issue books and other supplies for their several schools on the requisition of the teachers thereof, a strict account of which shall be kept by the supervising principal.

That the teacher shall be held accountable for the care and return of all books issued to them and for the proper use of all supplies issued to them.

That a strict account shall be kept by the teacher with each pupil on blanks furnished for the purpose.

That the books are to be for the use of the pupils in the school. Such books, however, may be taken home by the pupils whenever in the judgment of the teacher it is thought desirable to grant this privilege for study or for the preparation of lessons. The teacher, however, shall

be held accountable to the supervising principal for the preservation and return of such books.

That any pupil materially injuring or destroying a book, slate, or other supply shall be made to replace the same or to pay for the same, and may be deprived the privilege of school until this requirement is complied with.

That in the case of resignation, withdrawal, or removal of a teacher, the supervising principal shall make a strict examination of said teacher's school to ascertain if all books and supplies issued to said school are on hand and in proper order, or are otherwise properly accounted for before the pay certificate for the last month preceding such resignation, withdrawal, or removal shall be issued to the teacher.

That at the end of each school year every teacher shall render in writing a strict account to the supervising principal in charge of all books issued to him or received by him from the teacher preceding him, and the supervising principal shall satisfy himself that such accounts are correct, and that the number and condition of books, and the quantities and conditions of supplies are satisfactory, or that such books and supplies have been satisfactorily accounted for, before the pay certificate for the month preceding the close of the year shall be issued to the teacher.

That the supervising principals shall render a strict account to their respective superintendents of all books and supplies issued to them for the year before receiving their pay certificate for the last month preceding the close of the year.

That the superintendent shall at the close of the year render to the Commissioners a strict account of all books and other supplies received by them by requisition as of such books and supplies on hand at the beginning of the year.

---

OCTOBER 29, 1891.

*Ordered,* That permission is hereby granted the Anacostia and Potomac River Railroad Company to open Bridge and Monroe streets in Anacostia, for the purpose of relaying side-bearing tram rail with grooved girder rails.

---

NOVEMBER 4, 1891.

*Ordered,* That in order to facilitate the numbering of houses on the streets bordering the south and north sides of Lincoln Park, said streets shall each be designated as East Capitol street.

---

NOVEMBER 20, 1891.

*Ordered,* That in view of the fact that the District of Columbia has been using the telegraph poles on the west side of Fourteenth street NW. since the autumn of 1875, for the use of a portion of its wires, and can not abandon said plant without great injury to the fire-alarm and patrol-telegraph system, the United States Electric Lighting Company is hereby relieved of the responsibility of maintaining said lines of poles from Q street to S street NW., without compensation from the District of Columbia, and that the District shall reset such poles as are decayed.

OCTOBER 26, 1891.

*Ordered*, That article 8 of the police regulations in and for the District of Columbia is hereby amended by adding to the amendment of said article made October 23, 1891, the following:

No portion of any sign beyond the building line shall be less than 8 feet above the surface of the street.

No carriage step shall be erected or located beyond the building line unless a permit therefor shall first have been obtained from the inspector of buildings of the District of Columbia.

The penalties provided in section 8 of article 8 of the police regulations in and for the District of Columbia for violation of the provisions of section 3 of said article are hereby made applicable for violation of any of the provisions of this amendment.

The fee for permits for awnings shall be \$1 for each awning.

SEPTEMBER 14, 1891.

*Ordered*, That the following rules governing the purchase, distribution, and use of free text-books and supplies are hereby adopted:

That the superintendent of schools shall, as soon as possible, estimate the number of pupils in each grade who will probably attend the school during the school year beginning September, 1891; that he shall, with such numbers of pupils as a basis of reckoning, determine the number of books of each kind required, as also the quantities of other necessary articles required for the conduct of said schools in said grades, and report the same to the Commissioners.

That when the number of books and the quantities of supplies have been determined, bids shall be invited according to law for furnishing said books and said supplies, the contract to be awarded to the lowest responsible bidder, at the discretion of the Commissioners, according to law.

That books and supplies for free use shall be bought as books and other supplies have been bought for the schools in the past, on the requisition of the superintendent of schools, with the approval of the president of the board of trustees and of the Commissioners of the District.

That the different supervising principals shall make requisition for such books and supplies as may be needed in their schools upon their respective superintendents, which requisition, upon the approval of the superintendent in charge, shall be honored by the custodian, a strict account of which shall be kept by the superintendent.

That each supervising principal shall be held responsible for the care and return of all books ordered by him, and shall be held responsible for the economical use of all supplies ordered by him.

That the supervising principals may, in their judgment, issue books and other supplies for their several schools on the requisition of the teachers thereof, a strict account of which shall be kept by the supervising principal.

That the teacher shall be held accountable for the care and return of all books issued to them and for the proper use of all supplies issued to them.

That a strict account shall be kept by the teacher with each pupil on blanks furnished for the purpose.

That the books are to be for the use of the pupils in the school. Such books, however, may be taken home by the pupils whenever in the judgment of the teacher it is thought desirable to grant this privilege for study or for the preparation of lessons. The teacher, however, shall



be held accountable to the supervising principal for the preservation and return of such books.

That any pupil materially injuring or destroying a book, slate, or other supply shall be made to replace the same or to pay for the same, and may be deprived the privilege of school until this requirement is complied with.

That in the case of resignation, withdrawal, or removal of a teacher, the supervising principal shall make a strict examination of said teacher's school to ascertain if all books and supplies issued to said school are on hand and in proper order, or are otherwise properly accounted for before the pay certificate for the last month preceding such resignation, withdrawal, or removal shall be issued to the teacher.

That at the end of each school year every teacher shall render in writing a strict account to the supervising principal in charge of all books issued to him or received by him from the teacher preceding him, and the supervising principal shall satisfy himself that such accounts are correct, and that the number and condition of books, and the quantities and conditions of supplies are satisfactory, or that such books and supplies have been satisfactorily accounted for, before the pay certificate for the month preceding the close of the year shall be issued to the teacher.

That the supervising principals shall render a strict account to their respective superintendents of all books and supplies issued to them for the year before receiving their pay certificate for the last month preceding the close of the year.

That the superintendent shall at the close of the year render to the Commissioners a strict account of all books and other supplies received by them by requisition as of such books and supplies on hand at the beginning of the year.

---

OCTOBER 29, 1891.

*Ordered,* That permission is hereby granted the Anacostia and Potomac River Railroad Company to open Bridge and Monroe streets in Anacostia, for the purpose of relaying side-bearing tram rail with grooved girder rails.

---

NOVEMBER 4, 1891.

*Ordered,* That in order to facilitate the numbering of houses on the streets bordering the south and north sides of Lincoln Park, said streets shall each be designated as East Capitol street.

---

NOVEMBER 20, 1891.

*Ordered,* That in view of the fact that the District of Columbia has been using the telegraph poles on the west side of Fourteenth street NW. since the autumn of 1875, for the use of a portion of its wires, and can not abandon said plant without great injury to the fire-alarm and patrol-telegraph system, the United States Electric Lighting Company is hereby relieved of the responsibility of maintaining said lines of poles from Q street to S street NW., without compensation from the District of Columbia, and that the District shall reset such poles as are decayed.

OCTOBER 15, 1891.

*Ordered*, That for the fiscal year ending June 30, 1892, and pursuant to the act of Congress providing a permanent form of government for the District of Columbia, approved June 11, 1878, a tax be, and the same is hereby, levied of \$1.50 on every \$100 of real estate within the District of Columbia not exempted by law, except upon real property held and used exclusively for agricultural purposes within the limits of the cities of Washington and Georgetown, and so designated by the assessor in his annual return, the rate on which shall be \$1 on every \$100, and upon all personal property in the District of Columbia not taxable elsewhere, \$1.50 on every \$100, according to the assessed valuation thereof. The first half of said tax shall be due and payable the 1st day of November, 1891, and the second half on the 1st day of May, 1892.

---

DECEMBER 1, 1891.

*Ordered*, That Benjamin W. Clark is hereby permitted, as proposed by him, to collect and remove beyond the limits of the District of Columbia all dead animals within the District of Columbia, and to transport all garbage from the wharves to such point outside of the District of Columbia as shall be approved by the health officer of the District, from and after the morning of December 3, 1891, at a price not to exceed the sum of \$12.50 per diem; said Clark not to enter upon said service with the express understanding that no liability shall accrue against the District of Columbia for compensation for said service, but that said compensation shall be dependent wholly upon an appropriation by Congress. Said service to continue only so long as shall be ordered by the Commissioners of said District.

---

DECEMBER 2, 1891.

*Ordered*, That section 14 of article 10 of the police regulations be, and the same is hereby, amended by adding thereto the following:

Drivers of street cars in the District of Columbia, before crossing the tracks of a steam railroad, shall bring their cars to a full stop and not start them again until so directed by the conductor, who shall be satisfied, by personal observation, that the tracks may be crossed by the car with safety.

---

*Ordered*, That the police regulations in and for the District of Columbia are hereby amended by inserting after the word "street," in line 3, section 1, article 6, the words "or on any suburban paved or board sidewalk," so as to read as follows:

SECTION 1. No person shall drive or conduct sheep, swine, beeves, or other cattle in a loose herd through any improved city street or on any suburban paved or board sidewalk, except as hereinafter designated; nor shall any such driving or conducting be done except between the hours of 10 o'clock p. m. and 6 o'clock a. m. No herd or drove of beeves shall consist of more than fifteen, nor shall any herd follow a preceding herd at a less distance than one square of the city or be in charge of less than two drovers.

DECEMBER 3, 1891.

In view of the alleged construction placed on section 12 of the order of October 2, 1891, with reference to the allotment of spaces on B street, west of Seventh street, to farmers for market purposes, that it implies an obligation on the part of the representative of the District Government in charge of said market to collect a fee from said farmers for the cleaning of such spaces, it is hereby

*Ordered*, That it is the intent of said order merely to authorize said officer to receive and disburse voluntary collections for said purpose.

---

*Ordered*, That paragraph 4 of section 4 of the building regulations for the District of Columbia is hereby amended, so as to read as follows:

4. The walls of every building in course of erection must be constructed as nearly simultaneously as possible. In no case shall work in progress on one wall of a building be more than 8 feet higher than work in progress on any other wall of the same structure, unless under special permission in writing, first obtained from the inspector of buildings, defining the manner in which the work shall proceed.

DECEMBER 7, 1891.

*Ordered*, That section 2 of the order of December 8, 1887, designating places in the public streets where hacks shall stand is hereby amended by adding thereto "on or near the southeast corner of Connecticut avenue and I street NW., one vehicle."

---

*Ordered*, That the following rules for communicating by telephone over the wires owned by the District of Columbia are hereby established:

First. Officers and employes of the District of Columbia may use the instruments for any and all official business.

Second. Gossiping and private business strictly prohibited.

Third. In cases where life, or health, or safety of property of any similar emergencies exist, any person, whether connected with the Government or not, may use the lines and instruments for such emergency, but must not abuse the privilege.

DECEMBER 10, 1891.

*Ordered*, That contractors for laying brick sidewalks, granite block sidewalks, etc., are allowed to use bank sand, or such as contains not exceeding 8 per cent of clay, in lieu of river sand.

DECEMBER 15, 1891.

*Ordered*, That the order of October 20, 1891, relating to the assessment for water mains against land not subdivided into building lots is hereby modified so as to read, that the water-main tax shall be assessed at the rate of  $1\frac{1}{4}$  cents per square foot to a depth of 100 feet, etc., instead of 140 feet, as mentioned in said order.



DECEMBER 16, 1891.

*Ordered,* That hereafter the harbor boat shall not be taken beyond the limits of the District of Columbia, without the special authority of the Board of Commissioners of the District of Columbia in each case.

---

DECEMBER 22, 1891.

*Ordered,* That hereafter the chain gang must not be employed on any private work or on any private property.

---

DECEMBER 23, 1891.

*Ordered,* That no permit be issued for the erection of dwelling houses in alleys in square 936.

---

DECEMBER 30, 1891.

*Ordered,* That all permits for carriage steps, signs, and awnings, as provided in the police regulations pertaining to buildings and other structures, shall be issued by the inspector of buildings.

---

The United States marshal for the District of Columbia having, on the 17th of November, 1891, certified the verdict of the jury of seven, summoned by him pursuant to the written application of the Commissioners of the District of Columbia for the condemnation of land through which is to pass Sixteenth street NW., in the county of Washington, in the District of Columbia, as extended, as shown in the plat or map annexed to said verdict, showing that William H. Burr was awarded for 10,000 square feet of land in lot numbered 6, in part of block 7, taken for the purpose of said Sixteenth street, the sum of \$11,000 as damages, and that Zachariah T. Sowers was awarded for 3,093 square feet of land in lot numbered 7 in part of block 7, taken for the same purpose, the sum of \$2,500 as damages; and the said verdict being satisfactory to the Commissioners, it is hereby

*Ordered,* That the same be, and is hereby, approved and ordered to be recorded.

---

JANUARY 5, 1892.

*Ordered,* That upon the report and recommendation of the assessor of the District of Columbia, the sale and deed of lot 1 of Suit's subdivision of part of Uniontown, D. C., on January 26, 1889, to Thomas W. Smith, for arrears of general taxes, are hereby declared to have been erroneously made and will accordingly be annulled and canceled, and the said assessor will make due note thereof on his records.

---

*Ordered,* That the order of September 22, 1890, establishing rules for the assessment of work done under the permit system is hereby amended by striking out all after the word "property," in line 5, paragraph 4 thereof, and inserting in lieu thereof the words "and a reference to the act of Congress under which the work was done."

JANUARY 16, 1892.

*Ordered,* That \$400 is hereby apportioned from the fund for the relief of the poor for distribution under the supervision of the major of police, District of Columbia.

---

JANUARY 25, 1892.

*Ordered,* (1) That all cuts made in the paved carriageways of the District of Columbia by any party or parties whatsoever, including employes of the District Government, shall be repaired by or under the direction of the superintendent of streets of the engineer department.

(2) That no cuts shall be made by any person or persons in the paved carriageway of any avenue, street, alley, public space, or regulated street without first obtaining a permit for same.

(3) That all permits for cuts after being authorized shall be issued from the office of the permit clerk, who shall keep a record thereof, give notice to the superintendent of streets immediately upon granting a permit and keep a full record and account of deposit and cost of repairs of same.

(4) That any registered plumber desiring to make a cut in the paved carriageway of any avenue, street, alley, highway, road, or public space, shall before the issue of the first permit deposit the sum of \$50 with the collector of taxes to cover the cost of repairs, and shall keep this sum good whenever called upon to do so by the Engineer Commissioner.

(5) That any individual or corporation desiring to make extensive cuts in paved or regulated streets in the District of Columbia shall submit, with the application for making same, an estimate of the amount and location of cuts proposed.

Before the permit is issued a deposit covering the total cost of repairs will be made with the collector of taxes.

(6) All plumbers or others displacing valuable material from the street, such as granite blocks, asphalt blocks, etc., will be held accountable for the same until they are replaced by the District laborers, and any material lost or injured will be charged to them.

In case the plumber or other party making the excavation so elect he may haul the material to the District of Columbia property yards and take a receipt for same and his responsibility will then cease.

(7) The word "pavement" or "paved carriageway" in the above paragraphs includes macadam and Telford pavements or roadways.

(8) The following rates will be charged for repairing cuts: Sheet pavement, \$3 per square yard; granite, 15 cents per square foot and 5 cents for each granite block lost; asphalt block pavement, 15 cents per square foot and 7.1 cents for each block lost; cobble pavement, 5 cents per square foot; macadam and Telford, 15 cents per square foot, which includes cost of material and labor; vitrified brick, 15 cents per square foot and 2 cents for each vitrified block lost.

---

JANUARY 29, 1892.

*Ordered,* That no permit be issued for the erection of any dwelling in the 30-foot alley in square 754.

*Ordered*, That the order of December 8, 1891, directing that the shade trees on L street, between Eleventh and Thirteenth streets NW., be substituted by another variety, is hereby modified so as to permit the removal of only such trees as may be desired by the owners of the respective properties immediately adjacent thereto.

---

MARCH 5, 1892.

*Ordered*, That the schedule of limitations and provisions relative to the projection of portions of a building beyond the building line adopted October 23, 1890, as the basis of the Commissioners' concurrence under act of March 3, 1891, is hereby amended by modifying the provision in regard to steps, so that the solid walling of steps shall be limited to 5 feet above the grade of the contiguous sidewalk, terrace, or parking, as the case may be.

---

MARCH 12, 1892.

*Ordered*, That the order of December 6, 1888, made pursuant to the requirements of the act of Congress, entitled "An act to regulate the subdivision of land within the District of Columbia, approved August 27, 1888, is hereby amended as follows:

1. That no subdivision of land be received for record unless the plat conforms to the following requirements and the subdivision is marked on the ground as hereafter described.
  2. The original tract to be subdivided shall be plainly indicated as to location and boundaries and its total acreage given.
  3. The true bearings of the boundary lines shall be given in degrees and minutes of their lengths in feet and decimal parts of a foot.
  4. The true bearings of streets and alleys shall be given in degrees and minutes and the width of every street and alley in feet and decimal parts of a foot. Whenever a street line intersects a boundary line the distance shall be given to one of the boundary corners.
  5. The dimensions of every block shall be given.
  6. The subdivision, before it is allowed on record, shall be marked on the ground with monuments placed at every boundary angle and every street corner. These monuments shall have square tops 4 inches to 6 inches, be sunk in the ground not less than 2 feet, and project above the surface not less than 3 inches.
- 

MARCH 14, 1892.

*Ordered*, That temporary canopies or awnings of canvas may be constructed across sidewalks during inclement and stormy weather and maintained at such places and for such periods, not exceeding two days at one time, as the lieutenants of the Metropolitan police, under the direction and control of the superintendent of police, may approve for their respective precincts. For this purpose telephonic notices and approvals shall be sufficient, but a written record of all such permits shall be kept by the several station-keepers for their respective precincts. The special authority of the Commissioners shall in each case be obtained before permits for the maintenance of such canopies may be granted for a longer period than two days at a time.

---

*Ordered*, That the following regulations are hereby prescribed for the public safety in theaters or other public places of amusement in the city of Washington, District of Columbia, in accordance with the



requirements of the first section of the joint resolution approved February 26, 1892, entitled "Joint resolution to regulate licenses to proprietors of theaters in the city of Washington, District of Columbia, and for other purposes."

SECTION 1. In all theaters and other public places of amusement already erected in the city of Washington the doors shall open outward and remain open when the building is occupied, except fly doors opening both ways, which may be kept closed. The hall doors, stairways, seats, and aisles shall be so arranged as to facilitate egress in cases of fire or accident, and to afford the requisite and proper accommodation for the public protection in such cases all aisles and passageways in such buildings shall be kept free from camp stools, chairs, sofas, and other obstructions during any service, exhibition, lecture, performance, concert, ball, or any public assemblage.

SEC. 2. In all theaters and other public places of amusement in the city of Washington there shall be placed and kept attached to a water-plug on each side of the stage and fly-floors sufficient hose of the size used by the fire department to extend when in use to any part of the stage, scenery, and fixtures on and over the stage, and so situated and kept clear of obstructions as to be available and in condition for immediate use at all times, as provided in the act approved January 26, 1887, entitled "An act for the further protection of property from fire and safety of lives in the District of Columbia."

SEC. 3. There shall also be placed over each curtain opening, the full width of same, a 2-inch perforated water pipe, supplied by 1½-inch rising main at each end.

SEC. 4. All lights on the stages shall be electric incandescent, the wire to be properly insulated.

SEC. 5. Over the center of each theater stage there shall be placed a skylight containing not less than 80 square feet of surface, fitted with vertical louvers arranged to open by automatic appliances in case of fire, and also arranged to be opened from the stage by some employé of the theater specially charged with that duty, who shall be in constant attendance during each entire performance.

SEC. 6. The curtain openings of all theater stages shall be provided with asbestos curtains, which shall be arranged with appliances to be dropped at any moment.

SEC. 7. The side aisles of all theaters and other public places of amusement shall not be less than 3 feet in width, and the center aisle of the main floor not less than 3 feet 6 inches wide at the lower end of the opening, and increase in width toward the exits to a width of 5 feet 6 inches.

SEC. 8. All exits shall be of such dimensions as may be deemed sufficient by the inspector of buildings and the chief of the fire department and approved by the Commissioners. In all theaters every floor that is more than 8 feet above the sidewalk shall be provided with ample stairways or exits by such fire escapes as may be required by the inspector of buildings and the chief of the fire department and approved by the Commissioners.

SEC. 9. All heating boilers shall be placed outside of the walls of the theaters, and their situation approved by the inspector of buildings and the chief of the fire department.

SEC. 10. All lighting, water appliances, and other arrangements, as heretofore defined, on the stages shall be under the supervision of the fire marshal.

SEC. 11. In every theater during every public performance there shall be stationed a capable employé of said theater, whose selection shall be approved by the chief of the fire department of the District of Columbia. He shall be competent to render valuable assistance in case of fire or alarm of fire in or about such theater, and it shall be his duty to have all apparatus for the extinguishment of fire in proper position and ready for use at all times during such performance. No other duties shall be assigned to him during such performance.

---

MARCH 15, 1892.

*Ordered*, That 6-inch water main be laid on Kalorama avenue, Washington Heights, from Eighteenth to Nineteenth streets, under the provisions of the act of June 17, 1890, when pipe and funds become available, at estimated cost, including erection of fire hydrant, of \$1,438.60.

---

*Ordered*, That water main be laid on California avenue, Washington Heights, from Sixteenth to Nineteenth streets, under the act of June 17, 1890, when pipe and funds become available, at estimated cost, including erection of fire hydrant, of \$1,352.20.

*Ordered,* That hereafter before a building permit may be issued for the construction of any building on a street an amount not to exceed \$25 for each building shall be deposited with the collector of taxes to cover the expense of repairing any sidewalk or curb injured during the construction of such building and of the cleaning of the street required on account of excavation. The certificate of deposit must be presented to the inspector of buildings. The application for the withdrawal of this fund must be approved by the officer in charge of the surface department.

---

*Ordered,* That the order of October 23, 1891, establishing a schedule of limitations and provisions relative to the projection of portions of buildings beyond the building line as a basis of the Commissioners' concurrence under act of March 3, 1891, is hereby modified as follows with respect to vaults:

In front of dwellings vaults may extend 10 feet beyond bay windows or areas, but may not extend further than within 8 feet of the outside line of the curb on any street not a business street.

---

MARCH 18, 1892.

*Ordered,* That the regulations prescribed by the Commissioners of the District of Columbia, under date of March 14, 1892, for the public safety in theaters or other public places of amusement in the city of Washington, District of Columbia, in accordance with the requirements of the first section of the joint resolution approved February 26, 1892, entitled "Joint resolution to regulate licenses to proprietors of theaters in the city of Washington, District of Columbia, and for other purposes," are hereby amended and extended as follows:

SEC. 6. The side aisles next to the walls of all theaters or other public places of amusement shall be not less than 3 feet wide; all other aisles thereof shall be not less than 3 feet 6 inches wide at the end nearest the stage, and gradually increase in width toward the exits to a width of 5 feet 6 inches; a plan approved by the inspector of buildings of the District of Columbia, of each floor of the theater or other public place of amusement, showing all exits that can be used in case of fire, shall be conspicuously printed on each programme of each entertainment.

---

MARCH 23, 1892.

*Ordered,* That hereafter all persons desiring to examine any of the tax ledgers, or any other accounts pertaining to real or personal property in the District of Columbia, shall be permitted to do so only in the presence of an employé of the assessor's office.

---

MARCH 25, 1892.

*Ordered,* That under and by virtue of the authority and power conferred upon the Commissioners by the second section of the joint resolution "to regulate licenses to proprietors of theaters in the city of Washington, District of Columbia, and for other purposes," approved February 26, 1892, the following regulation be, and is hereby, made and declared as a police regulation in and for the said District, namely:

It shall not be lawful for the proprietors of billiard tables, pool tables, bagatelle tables, Jenny Lind tables, or other like tables, shuffle boards, and bowling alleys,



kept for public hire and gain in the District of Columbia, to allow any person under the age of 21 years to play at any game of billiards, pool, shuffle board, or any game that may be played on such tables or board, or play at bowls on said alleys, or permit such persons to come into or remain in their saloons, pool rooms, or bowling alleys, and all such places shall be closed during the entire twenty-four hours of each and every Sunday.

Any person violating the provisions of this section shall forfeit and pay to the District of Columbia a fine not less than \$5 nor more than \$50, to be recovered by prosecution in the police court, and shall in addition forfeit his or her license at the pleasure of the Commissioners.

---

MARCH 29, 1892.

*Ordered,* It appearing that requisite proceedings have been taken by all the owners of part of square numbered 1027, bounded on all sides by public streets in the city of Washington, in conformity with the act of Congress entitled "An act to authorize the changing of alleyways in the city of Washington" approved July 6, 1882, so much of the alleyways in said part of said square as the petitioners ask shall be closed is hereby closed as prayed for and as indicated for that purpose on the plan hereto attached (L. R. 161705 C. O.) and the new alleyways proposed by the petitioners to be substituted therefor as indicated on said plan are hereby declared opened as public alleys.

---

*Ordered,* That whenever the Commissioners shall, in their discretion, be of opinion that any improvements under the compulsory-permit system in accordance with the act of Congress approved August 6, 1890, are necessary for the public health, safety, or comfort, and fifteen days prior to the commencement of said work, the special assessment clerk shall proceed to cause notice of the intention on the part of the Commissioners to perform such work to be served upon each proprietor of property to be assessed therefor, if he be a resident of the District of Columbia and his residence be known to the office, and, if he be a non-resident or his residence unknown to the office, such notice to be served upon the tenant or agent, if known to the office, and a return of such service shall be made under oath, stating the manner in which such service was made, and be filed among the records of the special assessment division. And the service of such notice shall in all cases be either personal on said proprietor, tenant, or agent, or by leaving the same with some person of suitable age at the residence or place of business of such proprietor, tenant, or agent, or by affixing or placing a copy thereof on the property against which the assessment is made.

That the said notice shall state the number of the square, the lot or part of lot or parcel of ground, and lineal feet of frontage thereof upon the work so to be performed, the name of the last reported owner thereof, and a copy of the section of the act of Congress approved August 6, 1890, relative to permit work and assessments therefor.

---

MARCH 30, 1892.

*Ordered:* That a board consisting of the superintendent of sewers, the superintendent of streets, and the superintendent of lamps, is hereby appointed to consider and report upon a plan for enclosing and lighting the James Creek Canal in such a way as to lessen the liability to accident and at the same time to interfere as little as possible with the existing traffic in building materials carried along said canal.



APRIL 2, 1892.

*Ordered,* It appearing that the requisite proceedings have been taken by all the owners of square 1029, bounded on all sides by public streets in the city of Washington, in conformity with the act of Congress entitled "An act to authorize the changing of alleyways in the city of Washington," approved July 6, 1882, so much of the old alleyways in said part of said square as the petitioners ask shall be closed is hereby closed, and reverts as prayed for and as indicated for that purpose on the plan hereto attached, and the new alleyways proposed by the petitioners to be substituted therefor as indicated on said plan are hereby declared opened as public alleys.

---

APRIL 4, 1892.

*Ordered,* That hereafter before a building permit is issued for the construction of any building on a street with paved sidewalks the following amounts must be deposited with the collector of taxes to cover the expense of repairing sidewalks or curb injured during the construction of such building and of cleaning the streets required on account of excavation. For a single building, \$25. For a block of buildings, \$25 for the first building and \$15 for each additional building in a block of three or less, and \$25 for the first building and \$10 additional for each building in a block of four or more.

The certificate of deposit must be presented to the inspector of buildings. The application for the withdrawal of this fund must be approved by the officer in charge of the surface department.

---

APRIL 5, 1892.

*Ordered,* That hereafter no electric wires for telephone, telegraph, or electric-light service shall be strung and no poles for the same shall be erected in the District of Columbia, without a permit from the Commissioners of the District of Columbia.

---

APRIL 7, 1892.

*Ordered,* That paragraph 14 of section 4 of the building regulations of the District of Columbia is hereby further amended so as to read as follows:

14. No room in any building intended for human habitation or sleeping shall have less than 8 feet clear height nor shall permits be issued for any such building that is less than 12 feet in width. No such building shall be erected within the District of Columbia on any alley that is less than 40 feet wide its entire length directly through the square in which it is located so as to open into the streets on opposite sides of the square. No permit for the erection of a dwelling on any alley in said District shall be granted until such alley is extended to the aforesaid dimensions and not until provision satisfactory to the Commissioners shall have been made for the sewerage, lighting, and extension of water mains therein.

---

*Ordered,* That the order of March 29, 1892, providing for the giving of notices of the intention on the part of the Commissioners to perform work under the compulsory-permit system, is hereby revoked.

That hereafter before any work is done under said permit system a notice of the intention to do such work shall in each case be given by the Commissioners six consecutive times in one daily newspaper published in the District of Columbia.

APRIL 9, 1892.

*Ordered,* That the charge for contingencies and assessments incident to work done under the compulsory-permit system shall hereafter be ten per centum on the total cost of each piece of work performed under that system.

---

APRIL 11, 1892.

*Ordered,* That permit be granted the Western Union Telegraph Company to change the location of its poles at the passenger station of the Baltimore and Ohio Railroad Company in accordance with the recommendation of the Engineer Department.

---

*Ordered,* That the police regulation of March 25, 1892, prohibiting the playing of games on billiard tables, bagatelle tables, pool tables, Jenny Lind tables and other like tables, shuffle boards, and bowling alleys kept for public hire and gain during the twenty-four hours of each and every Sunday is hereby amended by providing further that places where such games are played shall also be closed during the hours that barrooms are required by law or regulation to be closed.

---

APRIL 12, 1892.

*Ordered,* That 6-inch water main be laid on U street, between Thirty-fifth and Thirty-sixth streets N. W., to be lowered at cost of \$100.

---

APRIL 16, 1892.

*Ordered,* That the Baltimore and Ohio Railroad be required to keep a watchman at the railroad crossing in Anacostia, at Bridge street, night and day, and also to provide automatic gates.

---

APRIL 21, 1892.

*Ordered,* That paragraph 16, section 2, of the building regulations of the District of Columbia, is hereby amended, as follows:

All permits hereafter issued for buildings intended for human habitation in any alley in the District of Columbia shall, in case work is not commenced thereon in good faith within ninety days from date of such permit, cease and determine; and permits for such buildings heretofore issued shall cease and determine within ninety days from this date unless work is commenced thereon in good faith within ninety days from this date.

---

APRIL 22, 1892.

*Ordered,* That, in pursuance of the authority and power vested in the Commissioners by joint resolution of February 26, 1892, the following regulations are hereby made:

1. No person, other than the contractor or his collectors, shall engage in collecting garbage, offal, or dead animals within the city limits, unless authorized by the health officer.

2. Owners or tenants of each house, hotel, restaurant, boarding house, commission house, or other place where there may be accumulations of garbage, shall provide suitable garbage receptacles.

3. Garbage receptacles must be made of metal, water-tight, covered, and of capacity not less than 3 nor more than 10 gallons, and shall be so placed upon the premises as to be accessible to the collectors at all hours during daylight.

4. It is unlawful to put anything but animal and vegetable matter in such garbage receptacles.

---

APRIL 26, 1892.

*Ordered*, That permission is given the Chesapeake and Potomac Telephone Company to set twenty-five poles on the Tennallytown and Rockville road, between a point south of Tennallytown and the northerly boundary of the District. Also, to change the location of six poles between Tennallytown and Georgetown on the Tennallytown road: *Provided*, That upon the demand of the Commissioners all such poles and wires thereon shall be removed entirely or the wires placed underground, as the Commissioners may direct.

That permission is given said company to string two copper wires in place of two iron wires at present on the line of said company, running from Fourteenth and L streets to and through Georgetown.

Also to, string two copper wires on the Tennallytown road from Georgetown to the District line with several branches into residences on the road: *Provided*, that on the demand of the Commissioners all such wires and poles carrying same shall be removed entirely or the wires placed underground, as the Commissioners may direct.

---

MAY 4, 1892.

*Ordered*, That paragraph 11 of the regulations governing the District of Columbia fire department is hereby amended by requiring that persons eligible for membership shall weigh not less than 145 pounds instead of 150 pounds, and shall be not less than 5 feet 7 inches in height instead of 5 feet 8 inches.

---

*Ordered*, That Alexander McKenzie, chief clerk in the office of the auditor of the District of Columbia, is hereby appointed to act in conjunction with representatives, respectively, of the First Auditor and the First Comptroller of the United States Treasury, the three to constitute a committee with authority to arrange for the cancellation and proper credit in the accounts of the several boards of Commissioners of the District of Columbia of all checks which have been drawn and signed but not delivered from July 1, 1878, to May 8, 1889, and also to formulate a plan for the systematic cancellation and credit similar checks in future.

---

MAY 9, 1892.

*Ordered*, That, in pursuance to the power and authority given to the Commissioners by the second section of the joint resolution "to regulate licenses to proprietors of theaters in the city of Washington, Dis-



trict of Columbia, and for other purposes," approved February 26, 1892, section 1 of article 8 of the police regulations in and for the District of Columbia, made under an act "to authorize the Commissioners of the District of Columbia to make police regulations for the government of said District," approved January 26, 1887, is hereby amended by adding after the word "sort" the words "and abutting lot-owners on improved streets, avenues, and alleys in the city of Washington, whose lots are above grade shall protect the same, and the parking in front of said lots, so as to prevent dirt, sand, or gravel from falling or being washed on the sidewalks and alleyways and thereby obstructing the same."

---

*Ordered,* That section 9, of the order of April 5, 1892, is hereby amended by adding thereto the following:

That the major of police will instruct the members of the force under him to require the exhibition of a permit from this office in each case of the erection of telegraph wires or poles in the District, and to report at once any case coming to their notice in which a permit has not been given.

---

MAY 11, 1892.

*Ordered,* That when alleys are paved under the permit system all temporary sidewalks be removed and the alley paved as a roadway from building line to building line.

---

MAY 13, 1892.

*Ordered,* That in pursuance of the authority granted the Commissioners of the District of Columbia by the third section of the act entitled "An act to authorize the appointment of an inspector of plumbing in the District of Columbia, and for other purposes," approved April 23, 1892, a fee of \$1 is hereby established and shall be charged for each permit granted to connect any building, premises, or establishment with any sewer, water, or gas mains, or other underground structure located in any public street, avenue, alley, road, highway, or space, or to make an excavation in any public street, avenue, alley, highway, road, or space, for the purpose of repairing, altering, or extending any house sewer, water main, or gas main, or other underground construction.

---

*Ordered,* That hereafter, whenever street-railway companies remove the old rails and lay improved grooved rails on streets paved with asphalt or granite block, they shall at the same time remove all cobblestone or rubble pavement and repave the surface to correspond with the street pavement, or with granite blocks laid in accordance with the District of Columbia specifications.

---

*Ordered,* That the schedule of water rents approved March 17, 1891, is hereby amended by adding the following:

Hereafter, in charging business establishments for using Potomac water not supplied through meters, no allowance or deduction from the schedule rates will be made on account of water claimed to be supplied from wells. Reserve boilers and machinery will be charged for at full schedule rates.

MAY 16, 1892.

*Ordered*, That paragraph 12 of section 2 and all of section 19 of the building regulations of the District of Columbia are hereby revoked, and the following substituted therefor as building regulations of the District of Columbia, to be known as section 19, and entitled "Construction of theaters and public places of amusement":

SEC. 19. Every building hereafter erected and every building hereafter altered to be used as a theater or public place of amusement, involving the use of a stage with movable or shifting scenery, curtains, and machinery, shall be a brick building of fire-resisting construction throughout, except flooring, so far as the nature of its use will permit; shall have the highest part of the main auditorium floor not more than 4 feet above the sidewalk; shall have at least one frontage on the street or avenue with openings for exits not less than one-third of the frontage of the building, and shall have the doors, halls, corridors, lobbies, stairways, passages, and aisles wide, direct, and so constructed and arranged as to afford easy egress for the occupants under all circumstances; all exits and entrances shall, as far as practicable, be identical, and shall have all doors open outward and of such width as may be deemed sufficient by the Commissioners of the District of Columbia. Such buildings shall have sufficient stairways and of such width and location as may be deemed by said Commissioners sufficient for exit under a pressure from panic or fire or other cause. The aisles next to the walls of the building shall not be less than 3 feet wide. All other aisles shall not be less than 3 feet 6 inches wide at the end near the stage and gradually increase in width toward the exit to a width of 5 feet 6 inches at the end next to exit, without any projection into them. No temporary seats or other obstruction shall be allowed in any aisle or passageway of exit or entrance, nor shall any person be allowed to stand in them. All exits from any such building shall be open for the use of every departing audience.

2. All changes in the levels of the floors of such buildings, except under stairways, from story to story, and except the necessary steps in galleries and balconies rising toward the exits, shall be made by inclines of no steeper gradient than two in ten within the auditorium and rising toward the exits, and one in ten for all others.

3. All stairways shall be composed of iron, stone, or other incombustible material. The risers shall not be more than  $7\frac{1}{2}$  inches nor the goings less than  $10\frac{1}{4}$  inches. No window shall be used in any stairway for entrance or exit. All stairways must be constructed with secure hand rails or brick dividing walls sufficient in construction to prevent accident in case of a heavy pressure.

4. All partitions inclosing lobbies and corridors or separating them from auditorium shall be of brick masonry or heavy studding, brick nogged throughout or otherwise made noncombustible. Every approach of exit through any other building shall have solid brick walls and floors and ceilings of approved incombustible and fire-resisting materials, there shall be no opening through said walls, floors, or ceilings.

5. No boiler, furnace, or heating apparatus, except steam pipes and radiators, shall be located under the auditorium or stage, nor under any passage or stairway of exit.

6. All lights shall be electric incandescent. The lights at rear of auditorium and all passages and stairways shall be independent of the lights in other parts of the house, and so arranged that they can not be turned off from the stage or platform.

7. All doors from auditorium to lobbies and stairways shall be metal-covered wood and self-closing. There shall be lobbies adjoining each division of the auditorium, the floor services of which shall be equal to one-third of the floor of the adjacent auditorium.

8. The stage shall be separated from the auditorium by a brick wall not less than 17 inches thick or its equivalent the entire width of the building, and topped out at least 4 feet above the roof over the auditorium. There shall be no openings in this wall except the curtain opening, and not more than two others to be located at the level or below the stage. These latter openings shall not exceed 21 superficial feet each, with tinned-wood and self-closing doors securely hung to rebates in the brick work. The wall over the curtain opening shall be carried by a brick arch of sufficient capacity and secured at each side of opening to prevent motion by thrust of arch.

9. There shall be water plugs on each side of stage and fly doors, with sufficient hose attached to each plug, of the size used by the fire department, sufficient to reach any point on or above the stage. They must be kept free from obstruction and ready for use at any moment. There shall be placed over the curtain opening the full width a 2-inch perforated pipe, supplied at each end by a  $1\frac{1}{4}$ -inch rising main, with valves controlled from stage, to form, when in service, a water curtain or automatic sprinkler, as the said Commissioners may direct. The curtain opening shall be fitted its full size with an asbestos or other fireproof curtain, hung and fitted with appli-



ances to be lowered at a moment's notice. The finish or decorative features around the curtain openings to be of incombustible materials well secured to masonry.

10. The roof trusses, all scenery, curtains, and exposed woodwork of every stage and fly floors shall be thoroughly covered or saturated, if practicable, with fire-resisting material, approved by the Commissioners of the District of Columbia.

11. All scene docks, carpenter or property shops and wardrobes shall be separated from the stage, auditorium, and dressing-room divisions by solid brick walls not less than 13 inches thick, with no openings to auditorium or dressing-room divisions. All openings to stage shall have tinned-wood self-closing doors, securely hung in rebates in the brickwork.

12. All rooms and premises in every theater for the use of employés therein shall be located in secure positions, and shall have at least two independent exits as remote from the stage as practicable. All parts of such rooms and premises, with their passages and stairways, shall be of fire-resisting materials.

13. There shall be one or more ventilators near the center and above the highest portion of stage of every theater, constructed of incombustible materials, and equal in combined area of opening to one-tenth of the area of the stage floor. Said ventilators shall have valves or louvers so counterbalanced as to open automatically, and shall be kept closed when not in use by cords or wires reaching to the prompter's desk and readily operated therefrom. There shall also be a proper arrangement of combustible cords or fusible connections to open the ventilating valves automatically by the action of fire on the stage.

14. The inspector of buildings shall, whenever he may deem it necessary, serve written notice on the owner, lessee, or manager of any building or part of building already erected or hereafter built and used or to be used in whole or in part for public assemblies, directing to be done in or about the arrangement thereof and the appliances connected therewith whatever is needful to afford the greatest possible security to the public and good ventilation, subject to appeal and determination by a commission appointed, as in the manner of dangerous and defective structures.

15. When application is made for a permit to construct or reconstruct edifices of the character referred to in this section, except churches and places of instruction, there shall be filed therewith, in the office of the inspector of buildings, the written permission of a majority of the residents and owners of property in the square in which said building is proposed to be located and of the confronting side or sides of the opposite square or squares fronting said building. A license for the particular establishment, designed for the purpose indicated in paragraph one of these regulations, shall first be procured and submitted to accompany the application.

16. Wherever galleries are constructed, all pillars, joists, or beams used in the construction of the same must be made of iron and deadened.

---

MAY 17, 1892.

*Ordered*, That a census of the District of Columbia be taken by the police department on or about June 1, next, without expense to the District.

---

*Ordered*, That section 1 of article 8 of the police regulations, in and for the District of Columbia, is hereby amended by adding the word "straw" after the word "hay," so that the section will read as follows:

SECTION 1. No person shall throw, cast, lay, deposit, drop, scatter, or leave, or cause to be thrown, cast, laid, deposited, dropped, scattered, or left in or upon any street, avenue, alley, highway, footway, sidewalk, parking, or public space in the District of Columbia, any dirt, mud, sand, ashes, gravel, sawdust, shavings, hay, straw, manure, rubbish, litter, sweepings, offal, vegetables, garbage, trees, cinders, paper, or refuse matter of any kind, or any dead animal or putrescible matter of any sort. *Provided*, That earth and rubbish from excavations or building débris or material used in the construction of buildings may be placed or permitted to lie in the places aforesaid, as now authorized by the building regulations of the District of Columbia, or as may be authorized by permit previously obtained from the inspector of buildings.



*Ordered*, That pursuant to the authority and power vested in the Commissioners of the District of Columbia by the first section of "An act to authorize the appointment of an inspector of plumbing in the District of Columbia, and for other purposes," approved April 23, 1892, the following regulations governing the ventilation, preservation, and maintenance in good order of public sewers in the District of Columbia are hereby made.

SECTION 1. No person shall, as principal or agent, throw, cast, lay, deposit, drop, or leave in or upon any public sewer in the District of Columbia, or any trap, basin, inlet, grating, manhole, or other appurtenance of any public sewer, any sticks, stones, brick, earth, gravel, dirt, mud, hay, straw, manure, rubbish, litter, sweepings, offal, vegetables, garbage, trees, shrubs, branches, twigs, leaves, papers, cinders, or refuse matter of any kind: *Provided*, That the provisions of this paragraph shall not apply to matter discharged through a house sewer into a public sewer.

SECTION 2. No person other than those employed in the sewer department, while on duty, shall enter any public sewer or appurtenance thereof without a written permit from the Commissioners.

SECTION 3. No person shall, as principal or agent, cut, break, pierce, or tap any public sewer or appurtenance thereof, or introduce any tube, pipe, trough, or conduit into any public sewer or appurtenance thereof without a written permit from the Engineer Commissioner.

SECTION 4. No person shall, as principal or agent, turn, lift, remove, raise, or tamper with any cover of any manhole, basin, inlet, or other appurtenance of any public sewer without a written permit from the Engineer Commissioner.

SECTION 5. No person shall, as principal or agent, break or damage any appurtenance of any public sewer or part thereof.

SECTION 6. No person shall, as principal or agent, make or maintain any connection with any public sewer or appurtenance thereof whereby there may be conveyed into the same any hot, suffocating, corrosive, inflammable, or explosive liquid, gas, vapor, substance, or material of any kind, and no person shall, as principal or agent, cause to enter or flow into any public sewer or appurtenance thereof any hot, corrosive, suffocating, inflammable, or explosive liquid, gas, vapor, substance, or material of any kind: *Provided*, That the provisions of this paragraph shall not apply to the ordinary hot-water boiler of a residence.

SECTION 7. No person shall, as principal or agent, do any act or thing which may impede or obstruct the flow of any public sewer or interfere with the free discharge or ventilation thereof, or clog up any appurtenance thereof.

MAY 20, 1892.

On the petition in writing of all the owners of square 189 in the city of Washington, in the District of Columbia, praying that the alleyway in the rear of lots 34 and 35 in said square be closed and an addition made to the existing alley in the rear of lots 40, 41, and 42 in said square, according to the lines shown on a plat filed with said petition, which said plat designates the parties to whom the title to the ground covered by the alley to be closed is to vest, and the Commissioners being satisfied of the truth of the facts stated in said petition as to the ownership and correctness of said plat and that the same is signed by all the owners, and also that the proposed change of the existing alleyway in said square will not be detrimental to the public convenience; and the owners of said lots 40, 41, and 42 having dedicated for public use ground owned by them nearly equal in area to the alleyway sought to be closed and praying that the existing alleyway be closed and a new one substituted therefor as shown in the plat,

*Ordered*, That the existing alleyway in the rear of lots 34 and 35 be closed and the additional alleyway in the rear of lots 40, 41, and 42 substituted therefor as prayed.

*And it is further ordered*, That a certified copy of this order and said plat be made and delivered to the said petitioners to be filed for record

in the office of the recorder of deeds for said District, and on the record agreeable to law, of said certified copy and plat, the right to the public use of the alleyway declared closed and the proprietary interest of the United States therein shall forever cease and determine and the title to the same shall be vested according to the agreement of the owners as shown in the aforesaid plat, each person being thenceforth the owner in fee simple of the parcel or parcels of land upon which his or her name shall be marked on said plat.

---

MAY 21, 1892.

*Ordered,* That the balance of the appropriation for the relief of the poor, amounting to \$220, is hereby apportioned to the use of the Women's Union Christian Association, to be applied to the support of the Home for Friendless Girls.

---

MAY 27, 1892.

*Ordered,* That the division lines of street parking shall be at right angles to the center line of the fronting street or avenue.

---

JUNE 3, 1892.

*Ordered,* That the surveyor of the District of Columbia be and he is hereby directed to note upon the record of the plat of block 5 in Kalamazoo subdivision, book 7, page 34, of his office that that portion of the acre in said block 5 which projects into Massachusetts avenue was extinguished and dedicated to the public by a deed from J. H. Rogers and John Ridout, trustees to Armistead Peter, jr., recorded among the land records of said District in liber 1662, folio 28 *et seq.*, and that the assessor of said District change the record in his office accordingly.

---

JUNE 13, 1892.

*Ordered,* That the Eckington and Soldiers' Home Railway Company is hereby directed to cause the bells of its cars to be rung when coming through the cut through the entrance of Lincoln avenue.

---

JUNE 20, 1892.

*Ordered,* That the following persons are hereby appointed as the board of dental examiners, under the provisions of an act entitled "An act for the regulation of dentistry in the District of Columbia and for the protection of the people from empiricism in relation thereto," approved June 6, 1892; said appointments to take effect from the 20th instant:

- John B. Rich, for one year.
- H. B. Noble, for two years.
- H. R. Walton, for three years.
- W. W. Evans, for four years.
- William Donnally, for five years.

JUNE 22, 1892.

*Ordered,* That officers and employés of the District government are prohibited from ordering any article whatsoever from contractors or other persons on account of the District of Columbia, or causing the District any indebtedness.

All requisitions must be submitted to the property clerk of the District for all articles required in every department of the District government, who will place upon such requisitions the estimated cost of the articles named therein and the state of the appropriation at that date. Such requisitions will be presented to the Commissioners for their approval and when approved will be returned to the property clerk, who alone is authorized to make all purchases to fill such approved requisitions.

Contractors or other persons will not deliver any article whatever to the order of any person but the property clerk, and will not be paid for anything delivered contrary to this order.

All bills for supplies to the District government shall be sent direct to the property clerk for his examination and certificate; said bills to be sent direct by him to the proper department for its examination and action; thereupon to the auditor for payment. All bills shall be separate for each department.



## V.

### REPORT OF THE OPERATIONS OF THE ENGINEER DEPARTMENT.

---

A.—REPORT OF CAPT. JAMES L. LUSK, CORPS OF ENGINEERS, U. S. ARMY,  
ASSISTANT TO THE ENGINEER COMMISSIONER OF THE DISTRICT OF  
COLUMBIA.

DISTRICT OF COLUMBIA,  
ENGINEER DEPARTMENT,  
*Washington, November 22, 1892.*

SIR: I have the honor to submit the following report upon the operations of the sub-surface division of the engineer department of the District of Columbia, for the fiscal year ending June 30, 1892. With this report I forward the respective annual reports of the superintendent of sewers, the chief clerk of the water department, the superintendent of the water department, the inspector of asphalt and cements, the superintendent of lamps, the inspector of gas and meters, and the permit clerk.

Reference is invited to these reports for details of the operations of each of the departments concerned.

I also forward maps showing the systems of water mains, sewers, and underground conduits, corrected to November 15, 1892.

#### WATER DEPARTMENT.

The total length of mains laid during the year was 108,926½ linear feet, or 20.63 miles. This is believed to be the largest addition ever made to the distribution system in any fiscal year. Of the length named, 26,574 linear feet was laid at the expense of the Washington and Georgetown Railroad Company, to make room for the conduits of the cable railway. The mains laid varied in diameter from 3 to 20 inches.

The most important line was that leading from Eleventh and East Capitol streets by way of Kentucky avenue, Pennsylvania avenue extended, and Minnesota avenue to Anacostia. From the point of beginning to Kentucky avenue and D street, this main is 20 inches in diameter; thence to the bridge 16 inches and the remainder 12 inches. This main is intended to serve as the supply line to the extreme southeastern part of the city, as well as the low territory beyond the Anacostia River. It has sufficient capacity to last for many years.

The following tables (1) and (2) summarize the extent of the distribution system on June 30, 1892:

TABLE 1.

New mains laid.	Feet.	New mains laid.	Feet.
20 inches in diameter .....	2,926	3 inches in diameter .....	1,257
16 inches in diameter .....	2,500	Connections for fire hydrants .....	1,856½
12 inches in diameter .....	10,163	Intersections laid .....	3,349
6 inches in diameter .....	83,584	Mains lowered .....	475
4 inches in diameter .....	3,291		
Valve casings changed to grade .....	105	New hydrants to replace old ones .....	36
Valves repaired .....	125	Hydrant moved to new curb .....	1
Fire hydrants erected .....	102	Hydrants repaired .....	816
Fire hydrants changed to grade .....	0	New drinking fountains erected .....	11
Fire hydrants moved .....	7	New fountains to replace old ones .....	0
Fire hydrants moved to new curb .....	8	Drinking fountains repaired .....	191
Fire hydrants repaired .....	1,001	Services laid to curb .....	9
Taps made .....	1,930	Service pipes lowered (number) .....	49
New hydrants erected .....	12	Service boxes and street washers adjusted	
Hydrants removed and abandoned .....	6	to new grade .....	246

TABLE 2.—Summary statement of distribution system.

	In service prior to June 30, 1891.	Added during fis- cal year 1892.	Total June 30, 1892.
	<i>Linear feet.</i>	<i>Linear feet.</i>	<i>Linear feet.</i>
75 inches diameter .....	662		662
48 inches diameter .....	29,736		29,736
36 inches diameter .....	23,245		23,245
30 inches diameter .....	36,719		36,719
24 inches diameter .....	14,659		14,659
20 inches diameter .....	20,329	2,926	23,255
16 inches diameter .....		2,500	2,500
12 inches diameter .....	81,816	*10,163	†89,160
10 inches diameter .....	12,141		12,141
8 inches diameter .....	5,925		5,925
6 inches diameter .....	807,194	*88,709½	†890,802½
4 inches diameter .....	22,009	*3,342	25,351
3 inches diameter .....	40,305	1,286	41,591
6 and 4 inch mains to fire hydrants .....	26,280		26,280
4 inches diameter and smaller .....	108,030		108,030
Total .....	1,229,050	108,926½	1,330,056½
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>
Stop valves .....	1,917	229	2,146
Fire hydrants .....	1,157	102	1,259
Street hydrants .....	287	12	†293
Service connections .....	35,411	2,465	37,876
Taps .....	28,870	1,930	30,800

\* Including 26,574 feet laid for account Washington and Georgetown Railroad Company.  
† 2,819 feet 12-inch and 5,101 feet 6-inch abandoned on account of new pipe laid for Washington and Georgetown Railroad Company.  
‡ Six street hydrants have been abandoned.

Statement of fire hydrants, street hydrants, etc., in the several sections of the city.

	Fire hydrants.	Street hydrants.	Pumps.	Horse fountains.	Public fountains.
Georgetown .....	83	40	19	3	1
Northwest .....	718	132	88	32	31
Northeast .....	143	33	43	5	6
Southwest .....	126	46	42	5	
Southeast .....	189	42	78	7	1
Total .....	1,259	293	270	52	39

The subjoined financial statement from the annual report of Chief Clerk J. J. Beall shows the receipts and expenditures of the water department for the fiscal year 1892.

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 373

## Financial statement for fiscal year 1892.

### Receipts from July 1, 1891, to June 30, 1892, inclusive:

Water tax:		
Current tax.....	\$60,415.38	
Advertised tax.....	4,562.67	
		\$64,978.05
Interest:		
On current tax.....	1,764.74	
On advertised tax.....	2,064.56	
		3,829.30
Water rents.....		220,892.93
Water taps for services.....		5,790.00
Permits for attachments.....		3,521.00
Water for building purposes, etc.....		2,759.81
		<u>301,771.09</u>

### Expenditures from July 1, 1891, to June 30, 1892, inclusive:

Salaries.....		*39,845.56
Contingent expenses.....		†2,255.47
Refunds:		
Water rents.....	\$669.84	
Water-main taxes.....	318.32	
		988.16
Extra clerical services making new water-rent books.....		588.00
For new numerical book.....		175.00
Pumping expenses and pipe distribution.....		†116.302.04
Interest and sinking fund on account of increasing water supply.....	69,991.13	
Interest and sinking fund on account of water-stock bonds.....	44,610.00	
		<u>114,601.13</u>
Total interest and sinking fund.....		114,601.13
Interest and sinking fund on account of increasing water supply:		
Interest.....	\$24,978.01	
Sinking fund.....	43,839.13	
		<u>274,755.36</u>
Total expenditures.....		274,755.36

Water tax levied during year.....	100,094.63
Water-tax arrears June 30, 1892—amount collectible.....	76,765.13
Total amount standing to the credit of water fund June 30, 1892.....	205,120.16

### Organization of and estimates for the water department for the fiscal year 1894.

#### For revenue and inspection branch:

For one chief clerk, at \$1,800 (\$300 submitted).....	\$1,800.00
Two clerks, at \$1,400 each.....	2,800.00
One clerk, at \$1,200 (\$200 submitted).....	1,200.00
One clerk, at \$1,000.....	1,000.00
One (chief) inspector, at \$1,200 (\$264 submitted).....	1,200.00
Seven inspectors, \$900 each (one submitted).....	6,300.00
One messenger, \$600.....	600.00

#### For distribution branch:

One superintendent, \$2,000 (\$400 submitted).....	2,000.00
One assistant engineer (submitted).....	1,800.00
One draftsman, \$1,500.....	1,500.00
One rodman (submitted).....	780.00
One axman (submitted).....	650.00
One foreman, \$1,400 (\$200 submitted).....	1,400.00
Two assistant foremen, \$900 each (one submitted).....	1,800.00
One clerk, \$1,400 (submitted).....	1,400.00
One clerk, \$1,200 (\$200 submitted).....	1,200.00

- \* Of this amount \$68 was paid on account of 1891.  
† Of this amount \$289.64 was paid on account of 1891.  
‡ Of this amount \$22,058.80 was paid on account of 1891.  
§ This item of \$68,817.14 was not advanced to Treasurer United States until after close of fiscal year and is not included in expenditures.



# 374 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## For distribution branch—Continued.

One time-keeper, \$900 (\$100 submitted) .....	\$900.00
One inspector, \$900 (submitted) .....	900.00
One tapper and machinist, \$900 .....	900.00
One assistant tapper, \$600 .....	600.00
Six steam engineers, at \$1,100 each (two submitted) .....	6,600.00
Extra steam engineers' services, on account of sickness, leaves of absence, and Sundays (\$360 submitted) .....	900.00
One blacksmith, \$750 .....	750.00
Two plumbers, at \$750 each .....	1,500.00
Two assistant machinists, at \$864 each (\$114 each submitted) .....	1,728.00
Two property-keepers, \$936 (one at \$900 and \$336 submitted) .....	1,872.00
Six firemen, at \$730 each .....	4,380.00
Extra firemen's services on account of sickness, leaves of absence, and Sundays (submitted) .....	600.00
Three flushers, at \$540 each (one submitted) .....	1,620.00
One calker, \$730 .....	730.00
Three laborers, \$500 each .....	1,500.00
One driver .....	480.00
Two watchmen (one submitted) at \$480 each .....	960.00
One hostler .....	480.00
For not to exceed at any time two inspectors on the manufacture of cast-iron pipe, at a maximum rate of \$4.50 per day for such periods as their services may be actually necessary .....	2,000.00
For contingent expenses .....	3,000.00
Pumping expenses .....	\$12,000.00
Repairs and maintenance .....	16,000.00
Fire and street hydrants .....	16,000.00
Service mains .....	56,000.00
	<hr/>
	100,000.00
Interest and sinking fund, water-stock bonds .....	44,610.00
Sinking fund on account of increasing water supply .....	55,188.01
Interest on account of increasing water supply .....	28,145.88
Second year's interest on account of 48-inch and Fourteenth-street mains .....	8,522.29
Second annual installment on account of 48-inch and Fourteenth-street mains .....	11,836.51
	<hr/>
Total .....	308,132.69

The foregoing estimates are submitted as showing approximately the needs of the water department for the fiscal year 1894. The additions proposed to the permanent force are made necessary partly by the extension of the system of mains and partly by the recent application of the eight-hour law to the public works of the District of Columbia. The increases of salary presented have for the most part been submitted in preceding reports, and are believed to be only fair, considering the character of the services rendered.

The following tables (3 and 4) show the cost of the mains laid during 1892 and the total cost of all mains laid since 1879.







North and south sides K	Second and Third NE	369.25	210.54	579.79	361.45	218.34
G	Eighth and Ninth NE	6	896	500.21	81.75	418.46
In alley	Eighth and Ninth and G and H NE	6	651	429.51	151.39	278.12
East and west sides Twenty-second	Massachusetts avenue and R NW	3	294	500.82	215.46	285.36
South side Massachusetts avenue	First and Second NE	6	710	807.09	14,269.34	13,461.65
Center Columbia avenue	Sixteenth and Quarry road NW	12	725	24,539.23	9,823.35	14,715.88
Center Minnesota avenue	Pennsylvania avenue and Harrison D and Pennsylvania avenue	12	638	4,684.44		
Center Kentucky avenue	East Capitol and A	16	7,779			
Center Eleventh	Eleventh and Kentucky avenue	20	2,500			
Center A	A and D	20	2,926			
Center Kentucky avenue						
INTERSECTIONS.						
In alley	Sixth and Seventh and G and I SE	3	29	39.41		
Thirty-first	Thirty-first and N NW	4	12	69.73		
	M and N	4	13	50.68		
	New Jersey avenue and D NW	4	3	16.98		
	Thirtieth and N NW	4	23	101.43		
	Twenty-ninth and Dumbarton avenue NW	4	47	52.96		
	Tenth and S NW	6	24	16.73		
	Tenth and Westminster	6	51	42.26		
	Twentieth and R NW	6	138	126.84		
	Eighteenth and Lawrence NW	6	42	49.92		
	New York avenue and North Capitol	6	222	178.45		
	Eighteenth and S NW	6	93	73.25		
	First and New York avenue NE	6	63	49.03		
	North Capitol and L NE	6	48	33.08		
	North Capitol and Pierce	6	48	40.82		
	Fourth and Massachusetts avenue NE	6	27	31.76		
	Sixth and D NE	6	51	31.81		
	Eighth and D SE	6	33	33.82		
	Ninth and D SE	6	44	94.89		
	North Capitol and M NW	6	29	22.05		
	Eleventh and North Carolina avenue SE	6	29	47.07		
	Tenth and North Carolina avenue SE	6	60	50.22		
	Eleventh and C SE	6	270	254.47		
	Massachusetts avenue and F NE	6				
	Twenty-second and N NW	6				
	Twenty-third and N	6				
	Twenty-fourth and N	6				
	Thirty-sixth and N NW	6				
	Thirty-sixth and Prospect	6				
	Madison and N NW	6				
	L and Pierce NW	6				
	Eighteenth and R NW	6				
	New Hampshire avenue and R NW	6				
	Massachusetts and Delaware avenues	6				
	Virginia avenue and I SE	6				
	North side I and Second	6				

TABLE 3.—Statement showing the cost of water mains laid during the fiscal year 1891-'92, and the assessment levied thereon—Continued.

Streets.	Streets between—	Size.	Length.	Cost of material.	Cost of labor.	Total cost.	Amount of assessment.	Excess of cost over assessment.	Excess of assessment over cost.
I.									
Le Droit avenue.	Second and Third SE.	6	22	\$12.21	\$12.37	\$24.58			
	Florida avenue and Thomas NW.	6	451	217.00	121.23	338.23			
	First and Randolph NW.	6	209	140.67	50.63	191.30			
	First and S.	6	132	66.33	40.25	106.58			
	Twenty-first and R NW.								
	Florida avenue and R.								
	Maryland avenue and Thirteenth NE.								
	Thirteenth and F.	6	238	152.61	50.50	203.11			
	F and Emerson.								
	Emerson and Thirteenth.	12	22	96.84	168.50	265.34			
	Thirty-second and M NW.	6		34.51	8.71	43.22			
	do.								
	Sixth and Massachusetts avenue NW.			51,640.60	20,092.44	71,733.04	\$98,706.37	\$21,203.96	\$53,790.23
Connection with dead ends, 4 and 6 inch mains.									
Cost of erecting fire hydrants:									
Material.				6,431.47		6,431.47			
Labor, including repairs to cuts in improved pavements.					1,280.74	1,280.74			
Total.						7,712.21			
Cost of laying mains, intersections, and connections.				51,640.60	20,092.44	71,733.04			
						79,445.25			
Total assessment levied in consequence of laying mains.						98,706.37			
Total cost of laying mains, intersections, and erecting fire hydrants.						79,445.25			
Excess of assessment over cost.						19,261.12			

TABLE 4.—Statement of the length and cost of water mains laid from July 1, 1878, to June 30, 1892.

Fiscal year.	30-inch.	24-inch.	20-inch.	16-inch.	12-inch.	10-inch.	8-inch.	6-inch.	4-inch.	3-inch.	Total.	Cost.
	<i>L. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>L. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	
1879	39½				3,719			12,781	30		16,641½	\$14,846.20
1880					7,409			8,546	1,397		17,352	19,436.03
1880								*3,024			3,024	
1881								3,709			3,709	3,110.70
1882								1,920			1,920	1,626.43
1883					1,625		26	4,084			5,735	8,073.70
1884					1,038			8,972			10,010	10,492.51
1885					963			27,766	358	485	29,572	25,865.35
1886					1,938	791		35,192		6,623	44,544	40,025.10
1887			†4,835		†1,124	†2,998		†30,041	†292	7,124	46,414	56,951.00
1888					731			9,123	†9,148	†3,937	22,939	17,626.63
1889		2,312	5,140		5,626	2,784		36,742	6,571	8,753	67,928	79,342.16
1890								§34,737	§2,856	2,855	40,448	19,113.54
1891					¶5,201			¶56,893	¶3,142	¶11,013	76,249	49,702.65
1892			2,926	2,500	=10,163			=88,709½	=3,342	1,286	108,926½	71,733.04
	39½	2,312	12,901	2,500	39,009	6,573	26	362,239½	27,136	42,076	495,412	417,945.04

\* Laid on Road street, Georgetown, to replace old cement pipe.

† Cost of laying intersection not included herein.

‡ 1,074 feet to United States Library site, cost not included herein.

§ 12,336 feet laid under permit system, cost not included herein.

¶ 5,576 feet laid under permit system, cost not included herein.

= 26,574 feet laid under permit system, cost not included herein.

## Comparative statement of revenues, actual and estimated.

Fiscal year.	Water rents.	Water taxes.	Taps.	Permits.	Total revenues.
1885	\$188,528.20	\$20,578.88	\$3,402.00	\$3,076.09	\$145,585.17
1886	124,896.22	36,162.04	5,096.00	3,459.03	169,613.29
1887	138,539.49	47,183.24	6,012.00	4,846.45	196,581.18
1888	171,892.49	34,264.85	4,182.00	4,809.92	215,149.26
1889	189,407.39	46,280.58	5,190.00	5,576.16	246,454.13
1890	197,053.34	45,386.55	5,313.72	6,327.95	254,081.56
1891	209,664.29	50,322.93	5,640.00	6,869.79	272,497.01
1892	220,892.93	68,807.35	5,790.00	6,280.81	301,771.09
1893 (estimated)	230,000.00	50,000.00	6,000.00	4,000.00	290,000.00
1894 (estimated)	240,000.00	50,000.00	6,000.00	4,000.00	300,000.00

Available balance in water fund June 30, 1892 ..... \$115,589.13

Estimated receipts, 1893 ..... 290,000.00

Total ..... 405,589.13

Estimated expenditures, 1893 ..... 360,000.00

Estimated available balance June 30, 1893 ..... 45,589.13

Estimated receipts, 1894 ..... 300,000.00

Estimated total available, 1894 ..... 345,589.13

## METERS.

Since my last annual report the number of meters in use has increased to a total of 154. The kinds and sizes now in service are shown below:

Size.	Crown.	Thomson.	Worth-ington.	Nash.	Total.
¾-inch					
1-inch	2		3		5
1½-inch	14	8	14		36
2-inch	15	10	18	1	44
3-inch	10	7	19	1	37
4-inch	8	2	13		23
6-inch		1	8		9
	8	1		1	10
Total	52	29	70	3	154



At its last session, Congress passed a law establishing penalties against attempts to defraud the District by tampering with water-meters and their connections.

I am convinced that the law of July 14, 1870, should be strictly enforced by requiring all establishments embraced in its provisions to place suitable meters before the beginning of the next fiscal year. Where water is used in large quantities, or the temptation to waste is great, there is no doubt as to the advantage of the meter system to the water department.

The Potomac is a stream having a generous flow even in seasons of excessive drought, but the conduit and the only reservoir in service are of limited capacity. The longer the water can be kept in the reservoir the clearer it will be when supplied to the water-takers, while the more slowly it passes through the mains the more satisfactory will be the pressures upon the higher levels, and the greater will be the economy possible in keeping down the sizes of new mains. All considerations of economy point to the most rapid utilization possible of the meter system of supplying water. Berlin and Paris and many American municipalities are rapidly adopting that system. Any schedule of water rates based upon the assessed value of property, the size of the building, or the number of rooms, occupants, or fixtures, may be regarded as artificial, and as a mere temporizing expedient pending the general application of meters.

#### WATER SUPPLY.

In an appendix to their annual estimates for 1894, the Commissioners have embraced several items submitted by the officer in charge of the Washington Aqueduct. The most important of these items is that relating to the improvement of the upper or receiving reservoir. Too much stress can not be laid upon the urgency of this work.

The distributing reservoir is now the only one available for storage. When full, its capacity is about 170 million gallons, or, roughly speaking, about four days' consumption. In this state of affairs the effect of any serious break in the conduit leading from Great Falls will certainly be to cause a water famine. While this might possibly be shortened for a few days by utilizing the questionable contents of the receiving reservoir in its present condition, the higher levels of the gravity service would begin to suffer at once, and, after one or two days, could not be supplied either as against fire or for domestic purposes until the damage was repaired.

The most ordinary foresight demands that the existing storage capacity be doubled by improving the receiving reservoir without unnecessary delay.

An incidental advantage which has often been pointed out as certain to follow the improvement of this reservoir is that each day's supply being allowed to settle twice as long as at present, the water would seldom reach the consumer in as turbid a state as is now sometimes the case.

#### HIGH SERVICE.

The daily pumpage at both the Washington and Georgetown pumping stations has materially increased during the year. By close attention the engines at the Georgetown station have been kept in fair working condition. The Knowles engine, having become overtaxed, is worked only in emergencies. The Blake engine is equal to the work

now required of it, but is very wasteful of fuel. The Gaskill engines at the Washington station can pump considerably more water than at present, if the existing lift be not increased, but can not be depended upon for supplying certain of the higher areas now urgently demanding a water supply. At its last session Congress provided that any surplus resources of the Water Department arising during the fiscal year 1893 might be applied to the extension of the high service. A detailed study is now being made of the proposed extension, and it will be completed by the time the funds become available. Several years will be required to complete this extension, unless some means can be devised to free the Water Department from the burden of debt which hinders the expansion of the distribution system at the rate demanded by the growth of the suburban areas. The calls for the extension of water mains into these areas are very pressing, the inhabitants being rightly distrustful of the quality of the well-water.

#### PUBLIC PUMPS.

At the end of the fiscal year 1892, there were in service 270 public pumps. Twenty-nine old pumps were replaced by new ones during the year, and 14 wells were abandoned and filled on account of failure or pollution of the water. Repairs to pumps were made in 374 instances.

Each year sees the failure of wells on account of the construction of sewers in their vicinity, the breaking up of the original strata of clay and gravel drawing the ground water down to a level below the bottoms of the wells. The appropriation asked for public pumps for 1894 is \$5,000, the same as that for the current fiscal year.

#### GAS AND OIL LIGHTING.

During the year the gas and oil lamps were lighted 3,000 hours each per annum, the minimum prescribed by law. This should be increased to not less than 3,800 hours per lamp per annum, and better still to 4,000. It seems idle to repeat the arguments in favor of the proposed increase. It is, perhaps, sufficient to say that, owing to the steady increase in the number of tall buildings and in the extent and thickness of the foliage, longer dependence upon the moon for street lighting purposes is futile. At best the problem of lighting much of the older portions of Washington and Georgetown is pretty nearly equivalent to attempting to light an ordinary forest, and to restrict the necessary hours of burning by one-fourth is economy difficult to justify. The three years' contracts authorized by Congress in 1890 will expire in 1894, and before new contracts are entered into, provision should certainly be made for not less than 3,800 hours burning per lamp per annum.

During the fiscal year 1893 all the gas and oil lamps were painted under contract. Advantage was taken of the painting to make a careful count of the lamps in service, and the results of this count were platted. About 450 old and worthless lanterns were replaced by new ones. The number of new gas lamps lighted during the year was 254. Twenty-three discontinued lamps were relighted, while 147 were discontinued, the net increase for the year being 130.

The total number of gas lamps recorded as in service on June 30, 1892, was 5,496, of which 5,053 were lighted by the Washington Gaslight Company and 443 by the Georgetown Gaslight Company. As a

# 382 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

whole the contracting gas companies rendered satisfactory service during the year.

One hundred and twenty-five new oil lamps were established during the year and 23 were discontinued, the net increase being 102. The total number in service at the end of the year was 539. The service rendered was fair. The oil lamps are considered as temporary substitutes for gas lamps, and are replaced by the latter as soon as practicable.

In connection with this service, as well as the electric lighting, my thanks are due to the Superintendent of the Naval Observatory for a very complete set of tables showing the duration of twilight and the times of the rising and setting of the sun and moon, computed for each day of the calendar year 1892.

The estimate for gas and oil lighting for 1894 is \$155,665.

## *Money statement for lighting for the fiscal year ending June 30, 1892.*

Appropriation, act March 3, 1891.....		\$141, 000. 00
Collections for street lighting on account of:		
The Baltimore and Potomac Railroad Company.....	\$2, 660. 02	
The Baltimore and Ohio Railroad Company.....	1, 121. 20	
		3, 781. 22
Total amount available .....		144, 781. 22

### DISBURSEMENTS.

For street lighting:		
Washington Gaslight Company.....	105, 712. 32	
Georgetown Gaslight Company.....	9, 438. 07	
Nicolai & Brother .....	7, 040. 36	
		122, 190. 75
For erection and moving of lamp-posts:		
Washington Gaslight Company.....	1, 884. 99	
Georgetown Gaslight Company.....	40. 04	
Nicolai & Brother .....	66. 80	
Services of employés.....	16. 50	
		2, 008. 33
For purchase of lamp-posts, lanterns, street designations, and other materials:		
Springmann & Son.....	4, 587. 53	
H. I. Gregory.....	1, 483. 95	
Wheeler Reflector and Light Company .....	2, 380. 00	
The Gleason Manufacturing Company.....	6. 25	
		8, 457. 73
For repairs of lanterns, post arms, designation frames, etc.:		
W. C. Cash.....	90. 00	
T. M. Quill.....	158. 62	
W. E. Owen.....	76. 50	
Henry Warren .....	3. 00	
		328. 12
For painting street lamps in the District of Columbia:		
W. C. Peake, contractor, for painting.....	706. 74	
Hugh Reilly, painting materials.....	455. 00	
George Ryneal, jr., painting materials .....	366. 35	
Services of employés.....	317. 12	
		1, 845. 21
For inspection of street lanterns:		
G. L. Plympton, traveling expenses .....		14. 80
Total disbursements .....		134, 844. 94
Outstanding liabilities.....		
Unexpended balance.....		9, 936. 28
Total .....		144, 781. 22



## ELECTRIC LIGHTING.

On June 30, 1892, there were in service 324 arc lamps, each of 2,000 nominal candle-power, an increase of 82 lamps during the year. These lamps were lighted from sunset to sunrise each night, a total of 4,301 hours and 4 minutes per lamp. The existing contract will expire on June 30, 1894. Before that time legislation should be secured authorizing a reduction in the annual period of arc lighting to 4,000 hours per lamp per annum. Any saving possible in this respect may well be applied to extending the hours of gas lighting, as recommended elsewhere in this report. Excepting for a short period about the middle of the fiscal year, when some interruptions occurred, the arc lighting service has been well maintained.

Estimates have been submitted for the extension of the arc lighting to include H street north from Seventh street west, to Fifteenth street east. The northeast section, for the benefit of which this extension is recommended, has thus far had no share in the advantages of this service. The estimate for electric lighting for 1894 is \$70,000.

For details concerning the lighting service, attention is invited to the accompanying report of the superintendent of lamps.

*Money statement for electric lighting for the fiscal year ending June 30, 1892.*

Appropriation, act of March 3, 1891 .....	\$59,500.00
Collections for street lighting, Baltimore and Potomac Railroad .....	549.00
Total amount available .....	60,049.00

## DISBURSEMENTS.

For street lighting:	
The U. S. Electric Lighting Company .....	58,057.80
For inspection:	
Services of employes .....	492.00
Unexpended balance .....	1,499.20
	<u>60,049.00</u>

## SEWER DIVISION.

The problems now before this division for solution I believe to be the most important which confront the District government. Unless ample means are provided and large drainage works pushed speedily to completion, serious results are to be apprehended, not only as concerns the health and comfort of the community, but also as affecting its material growth and prosperity. The issue can not be evaded. The city has outgrown and overtaxed much of its old drainage system, and in some directions has spread beyond the limits of the new system, while grave nuisances exist close to populous areas. The most pressing necessities will be set forth in detail below.

## CLEANING AND REPAIRING SEWERS AND BASINS.

Under this appropriation extensive repairs were made to the north-east branch of the old Georgetown main sewer, the main sewer on Sixth street southeast, crossing Virginia avenue, and the main sewer on the east side of Eleventh street northwest, between B street and Pennsylvania avenue.

The basin at the foot of New Jersey avenue southeast, which receives the discharge of two main sewers, and had become quite shoal and

offensive, was dredged under contract and its sanitary condition much improved.

The following list shows the work done from the appropriation in question, in addition to that specified above:

Pipe sewers relaid.....	linear feet..	1, 534
Brick sewers .....	do.....	169
Brick sewers rebuilt .....	do.....	58
Manholes repaired .....	number..	145
Manhole covers replaced .....	do .....	111
Catch-basins built .....	do .....	3
Catch-basins rebuilt.....	do .....	6
Catch-basins repaired.....	do .....	370
Catch-basin covers replaced.....	do .....	70
Minor repairs to sewers .....	do .....	402
Pipe sewers cleaned.....	linear feet..	172, 071
Main sewers cleaned .....	do.....	11, 113
Manholes cleaned.....	number..	4, 864
Catch-basins cleaned.....	do .....	42, 914
Cubic yards of silt removed from sewers and manholes.....		11, 068
Cubic yards of silt removed from catch basins.....		12, 874

The total expenditure from this appropriation was \$42,695.69. The estimate for 1894 is \$50,000. On account of the possibility of an outbreak of Asiatic cholera at least a part of this appropriation should be made "immediately available."

#### REPLACING OBSTRUCTED SEWERS.

Under this appropriation the total length of sewers replaced was 8,438 linear feet, of diameters varying from 8 to 24 inches. The old sewers were built from 1871 to 1874, and were replaced on account of defects due to bad alignment, false grade, insufficient size, and faulty construction. In many places the necessity for immediate replacement rose from the intrusion of tree roots at the joints in such quantity as practically to stop the flow in the sewer. From the fact that many of the sewers laid during the period referred to are out of line and grade, they are extremely difficult to inspect, and when a stoppage occurs it is often an expensive matter to locate and remove it. It is probable that at least all the pipe sewers laid in the sidewalks or parking during the period referred to will have to be replaced.

The expenditure from this appropriation for 1892 was \$23,325.10. The estimate for 1894, is \$27,500.

#### PERMIT WORK.

Under the voluntary system, one-half the estimated cost being deposited in each case in advance of the performance of the work, there were completed eighty-three pieces of pipe sewer, ranging in diameter from 8 to 24 inches, and aggregating 13,440 linear feet, or an average of 162 feet per piece. The average cost per linear foot was \$1.68, and per job \$271.78. In the subdivision known as Burleith, an egg-shaped brick sewer was built 343.3 feet long and 3.75 by 5.625 feet in section, at a cost of \$7.94 per linear foot. Under this system, eighty-seven manholes were built in connection with the sewers.

Under the compulsory system, one-half the total cost being assessed against the abutting land, the work done included thirty-six different jobs, averaging in length about 280 feet, and in cost per linear foot, \$1.64. The diameter of the pipe varied between 8 and 18 inches. As part of this work, seventy-seven manholes and eight catch-basins were built.

Upon deposit of the whole estimated cost, twenty-nine pipe sewers were built, from 8 to 24 inches in diameter, and averaging in length 100 feet; in cost per sewer, \$194.13, and in cost per linear foot, \$1.95. As part of this work, thirty-two manholes and seven catch-basins were built.

Under the inspection of the sewer division, the Washington and Georgetown Railway Company, to make room for the cable railway, built 610 linear feet of brick sewer 4½ feet in diameter, on Fourteenth street, NW., between D street and Pennsylvania avenue, and 142 linear feet of brick sewer 6.25 feet in diameter at Fifteenth street and Pennsylvania avenue, NW. No expense on account of this work was incurred by the District.

The expenditures for 1892 were \$12,642.63 for work under the voluntary system, and \$16,594.52 under the compulsory system, a total of \$29,237.15.

#### MAIN AND PIPE SEWERS.

The main sewers constructed from the appropriation for 1892 were as follows: H street, northeast, from Eighth street to Florida avenue; Fourteenth street, southeast, from a point between K street and Pennsylvania avenue to G street; B street northeast, from Twelfth street to Tennessee avenue; C street, northwest, between First street and New Jersey avenue; and in the north and south alley of Square B.

The pipe sewers built aggregated a length of 23,171 feet, varying in diameter from 6 to 24 inches. The appropriation for main and pipe sewers for 1892 was \$119,000, practically all of which was expended, or needed to meet obligations outstanding at the end of the year. The following list shows the estimates under this head for 1894:

Fourteenth street SE .....	\$21, 920
Georgia avenue SE., Fourteenth to Sixteenth streets .....	12, 100
Seventh street SE., between South Carolina avenue and G street .....	5, 240
Kentucky avenue .....	3, 105
Fourteenth street SW., between D street and Maryland avenue .....	2, 588
F street NE., between Tennessee avenue and Fourteenth street .....	2, 415
Twelfth street NW., between R and S streets .....	3, 500
R street NW., between Tenth and Twelfth streets .....	3, 080
Maine avenue .....	9, 709
Twenty-ninth street, between Olive and Dunbarton streets, and on Olive street, between Twenty-ninth street and Rock Creek .....	21, 800
Pipe sewers .....	65, 000
Catch-basins .....	10, 000
	<hr/>
	151, 457

Every sewer in the above list is badly needed at the present time. For a detailed statement of the necessity in each particular case reference is invited to the accompanying report of Mr. D. E. McComb, superintendent of sewers.

#### SUBURBAN SEWERS.

The main sewers built under the appropriation for 1892 were on Navy Place, between the Anacostia River and Nichols avenue, 891.2 lineal feet of the Sherman avenue sewer, 838.05 lineal feet of the Spring road sewer, and 2,949 lineal feet of the Upper Rock Creek (east side) intercepting sewer. Fair progress was also made upon the Eckington trunk sewer, between Q and S streets NE. There was also built a total length of 7,493 feet of pipe sewer varying in diameter from 12 to 24 inches.



The appropriation for suburban sewers for 1892 was \$75,000, practically all of which will have been expended when outstanding obligations are paid.

The estimates under this head for 1894 are set forth below:

Upper Rock Creek (east side) intercepting sewer .....	\$79,825
Piney Branch intercepting sewer .....	6,588
Woodley Lane .....	7,240
Spring road .....	29,755
Sherman avenue .....	5,592
First street, west, extended .....	8,480
Linden street .....	2,187
Thirteenth street, between Columbia and Kenyon streets, NW .....	4,500
Brentwood road and Fourth street, east, between Florida avenue and Q streets .....	24,618
Bladensburg road .....	13,500
Anacostia main sewers .....	15,000
Pipe sewers .....	20,000
Catch-basins .....	4,000
	<hr/>
	221,315

Not one of the items named can be safely omitted or postponed. The necessity in each case is set forth in the report of the superintendent of sewers, herewith.

Pressing demands for sewerage have recently been made by residents of some of the more distant suburban areas of the District. As these are for the most part situated at the heads of long lines of natural drainage, the construction of the trunk sewers will necessarily be expensive. For the present, the absence of public thoroughfares coincident, or nearly so, with the lines of natural drainage, acts as a bar to the building of the sewers, even if the funds for the construction were available. In cases of this kind, the rights of way should be secured, without cost to the District of Columbia, before any construction is undertaken.

#### SEWAGE DISPOSAL.

At its last session, Congress appropriated \$90,000 toward the construction of a portion of the E street and Easby's Point intercepting sewer, and authorized the making of a contract for the whole of the work, between Easby's Point and Fifteenth and E streets NW., at a total cost of not to exceed \$225,000. The recent application, by law, of the eight-hour system to the public works of the District of Columbia, renders it extremely doubtful whether the work can be placed under contract for the sum appropriated. The original estimate has, therefore, been somewhat increased. As a preliminary to the preparation of the detailed plans for this work, careful borings have been made and the final location is now in progress.

My estimates for 1894 include also provision for the Lower Rock Creek intercepting sewer, and the Anacostia right bank intercepting sewer, making for the year in question a total of \$573,500 for three of the sewers embraced in the system of sewage disposal recommended by the Board of Sanitary Engineers appointed in 1889.

The urgent necessity for the prompt building of the entire system of sewage disposal has been so persistently dwelt upon in former reports that repetition seems to be useless. I venture, however, to quote as follows from my report of last year:

It would be of great advantage to the city and to the district at large if sufficient funds could be provided in one appropriation to complete the entire system of sewage disposal. The construction would of necessity extend over several years, but a great

saving of time and money would be effected if the whole work could proceed from beginning to end without the delays incident to annual appropriations. There is nothing to gain and much to lose by postponing this work, the execution of which will be more and more costly with the crowding up of population and the increase of traffic in the low areas.

A visit to the mouth of the Tiber sewer, at South Capitol and G streets, about one-half mile from the Capitol, will satisfy almost any inquirer as to the necessity for early and vigorous action in this matter, so far at least as that locality is concerned.

At the point named, the Tiber sewer, which is the conduit for the wastes due to the population of an urban area of more than 1,400 acres, discharges into the head of the James Creek Canal, a waterway subject to tidal rise and fall. Through this canal the sewage sluggishly oscillates until finally it makes its way to the Anascostia River, a distance of more than a mile. The effect of this enormous open cesspool upon the surrounding territory is bad enough at any time, but during the warm season is extremely objectionable.

The whole trunk sewer system of the low grounds is inadequate, and on that account has been condemned by the deliberate judgment of the engineers specially appointed to study it and of those having it in charge. To continue to devolve upon the Sewer Division the task of trying to maintain a system of the kind is to invite inconvenience and loss to the public on a large scale, and to keep open the door to disaster due to floods which can be averted only by the construction and operation of the works designed for the purpose.

#### RELIEF SEWERS.

The rapid extension of the built-up and paved areas of the city has overtaxed many of the old pipe sewer systems, which were originally laid too small for the ultimate service of the territory now occupied by them, but which have continued to answer their purpose so long as the volume of storm-water entering them remained comparatively slight. A recent study of these systems has led to the preparation of a list containing those cases which must be reached by the construction of relief sewers in the near future. The total estimated cost of the necessary sewers is \$117,542, the work on which can not properly be delayed.

#### EMERGENCY FUND.

As there have not been wanting prophecies of an outbreak of Asiatic cholera throughout the country next spring, it is suggested that ample provision be made in the nature of an increased emergency fund, subject to the discretion of the Commissioners. The fact that Congress may not be in session at the time referred to, seems to make some provision of the kind a necessity. If an outbreak of the pestilence occurs or threatens, a large volume of extra work will be necessary, in the way of disinfecting alleys and courts and cleaning, flushing, and disinfecting sewers and their appurtenances.

Under the circumstances, I would suggest that the emergency fund be fixed at not less than \$25,000, that not less than \$10,000 of this sum be made applicable, if necessary, to the special cleansing and disinfection of public sewers and their appurtenances, and that the appropriation be made available from the time the act becomes law.

#### GAUGING SEWERS AND RAINFALL.

The work of recording, reducing, and platting the results of contemporaneous measurements of rainfall and sewer discharges was contin-

ued throughout the year. The series of observations is now well under way, and should be continued for several years without interruption. I recommend that an appropriation of \$2,500 be made for this purpose for the fiscal year 1894.

#### AUTOMATIC FLUSH TANKS.

Some complaint has arisen concerning objectionable odors from man-holes. For the most part, these complaints came from streets having exceptionally steep grades. In a few instances automatic flush-tanks have been tried as a remedy, with good results. It is proposed to apply these devices to all the worst cases. An estimate of \$10,000 for this purpose has been submitted.

#### JAMES CREEK CANAL.

My estimates for 1894 contain an item of \$3,000 for the building of a strong and close fence along both sides of this dangerous waterway. This construction appears to be necessary in order to prevent accidents by drowning, which are more numerous than they should be in the locality in question.

As it is not probable that any system of sewage disposal which would render possible the filling up of the canal can be completed within less than four or five years, the proposed expenditure appears to be justifiable on the score of humanity. If the necessary sum is included in the next appropriation bill, it should be made "immediately available."

#### PLUMBING REGULATIONS.

A distinct step in advance was taken in the enactment by Congress, at its last session, of a law authorizing the Commissioners "to make, modify, and enforce regulations governing plumbing, house-drainage, and the ventilation, preservation and maintenance in good order of house sewers and public sewers in the District of Columbia, and also regulations governing the examination, registration and licensing of plumbers and the practice of the business of plumbing in said District."

The plumbing regulations authorized by this law should have been promulgated and in force by this time, but have been delayed by the serious and prolonged illness of the Inspector of Plumbing. As soon as that officer's health permitted, a board was appointed to prepare the necessary regulations for submission to the Commissioners. This board has pushed its work vigorously, and it is expected that the regulations will be ready for submission within a few weeks.

Under the authority of the act referred to, the Commissioners have already made and promulgated regulations for the protection of the public sewers.

#### UNDERGROUND CONDUITS.

Material extensions of the underground lines were made by both the United States Electric Lighting Company and the Chesapeake and Potomac Telephone Company. Thus far the only appreciable effect of granting these valuable franchises has been to restrict, but not altogether to prohibit the increase in mileage of overhead wires. The time appears to be near at hand when a heavy annual tax should be levied upon all overhead wires and their supports maintained along the streets and avenues of Washington. No other remedy promises to be of any avail in securing an abatement of the overhead-wire nuisance.



## INSPECTOR OF ASPHALT AND CEMENTS.

Under the direction of this officer there were examined during the year a total of 4,478 samples, of which 725 related to asphalt paving work; 3,273 samples of natural and 285 of Portland cement were tested, and 195 analyses were made of water, ice, sewage, and miscellaneous substances. I renew my recommendation of last year, that a laboratory outside of the District office be provided for this work, and that a sufficient appropriation be made to suitably equip the laboratory.

In connection with the use of large quantities of hydraulic cement in concrete for sewer construction, and as base for asphalt pavements, some extended experiments have been carried out by the inspector of asphalt and cements to determine the conditions affecting the strength of cement mortar as used on the work and for the purpose of comparing the actual returns obtained in practice with those shown to be possible by laboratory tests. The latter are made with the smallest possible proportion of water, with perfectly clean crushed quartz having grains of uniform size, and with the mortar thoroughly compacted, conditions favorable to strength, which can rarely, if ever, be reached upon the work.

The results of these experiments show that the proportion of water used is a most important factor in determining the strength of concrete, especially at early stages of its set, and that even under the most favorable conditions enough water is habitually used in practice to reduce the strength of the mortar below that obtained in the laboratory tests by very large amounts—with certain brands of cement over 70 per cent. With other brands the reduction from this cause is not so great, and it has been shown that although one cement may give greater returns than another in the testing room these results may be reversed on the works.

In like manner experiments with different sands have shown that some cements are affected much more than others by the physical nature and condition of the sand used. This has led to an extended series of tests of characteristic cements with sand and crushed quartz of various sizes, with mixtures having grains of different sizes, and with the addition of small quantities of loam and clay. The results already obtained are of interest, and in general confirm and extend the experiments made during the construction of the Boston Main Drainage Works with the cements and sands there used, which were somewhat different from those with which we have had to deal.

Beyond this, an examination has been made of the manner in which moisture, temperature, and other meteorological conditions affect the setting of concrete, the results showing that the several classes of cements—straight lime, dolomitic, and Portland—differ markedly in the manner and degree in which they are affected by these conditions.

The results of these experiments appear in part in the report of the inspector of asphalt and cements.

## TESTING MACHINE.

The construction work of the engineer department requires the purchase of a machine which shall be capable of testing materials of construction both for tensile and crushing strength. There is no machine now available in the District which is capable of making satisfactory tests of the kind, which are essential to good work. My estimates for 1894 consequently include an item of \$5,000, which is sufficient for the purchase and setting up of a suitable machine.

## INSPECTOR OF GAS AND METERS.

Attention is invited to the accompanying report of this officer for details concerning the illuminating power and purity of the gas supplied by the two gas companies during the year.

Attention is again invited to the recommendation of the inspector to the effect that an additional testing laboratory be established in a locality which will allow suitable tests to be made of the gas supplied by the new works of the Washington Gas Light Company, and that an assistant inspector be provided. Until these recommendations meet with favorable action it will be impossible to carry out the provisions of existing law concerning the inspection of gas and meters.

## DISTRICT APPROPRIATIONS.

During the fiscal year provided for by the long session of each Congress the execution of works of public importance is much impeded by the late passage of the District appropriation bill. After the expiration of the short session, on the other hand, sufficient time is given to allow contracts to be executed, materials to be manufactured and delivered, and all other preparations made for the energetic prosecution of work from the very beginning of the new fiscal year. The advantage of several months thus gained is of the greatest benefit to all concerned. If possible, the final passage of the District appropriation bill during the long session should not be delayed beyond the last of March. The matter is one of real importance, involving not only the question of the most economical execution of the public works referred to, but also the health and comfort of thousands of persons. Whenever the bill passes as late as July or August a great deal of work of building sewers and laying water mains must necessarily go over into bad weather or be actually delayed until the following spring. Under these circumstances it is by no means a rare occurrence for houses provided with modern plumbing appliances to be occupied for months before they can be reached by the public system of drainage and water supply.

In conclusion I consider it my duty to point out three subjects of especial importance to the public welfare in connection with the work of the sub-surface division. These are: the completion at the earliest possible date of an adequate system of sewage disposal, and protection against freshets; the immediate construction of the most important trunk lines of sub-urban sewers, and the most rapid extension possible of the high-service system of water supply. The necessity for prompt action in bringing about each of these improvements is believed to be self-evident, even though a temporary increase in the indebtedness of the District should be required. The total cost will be large, but the returns in the increased health and comfort of the public will be of inestimable value. Large additions to the District revenues, due to the increased value of real estate benefited are also certain to follow the completion of the proposed works.

The fixing of the period of illumination in the gas-lighting service at not less than four thousand hours per lamp per annum should also be urged for enactment at the earliest practicable time, in the interest of public comfort and safety.

Very respectfully, your obedient servant,

JAS. L. LUSK,  
*Captain of Engineers.*

Capt. W. T. ROSSELL,  
*Corps of Engineers, U. S. Army,*  
*Engineer Commissioner District of Columbia.*



## REPORT OF SUPERINTENDENT OF WATER DEPARTMENT.

WASHINGTON, D. C., *October 3, 1892.*

SIR: I have the honor to submit the following report relative to the extension and maintenance of the distribution branch of the water department during the fiscal year ending June 30, 1892:

There has been a gradual improvement in the equalization of the water supply in the gravity system in the northeast, southeast, and southwestern sections of the city, and with the exception of the area north of U street from Ninth to Eighteenth streets northwest, the gravity supply has been fairly satisfactory.

Complaints from all sections received immediate attention, the actual condition was ascertained, and, when possible, a more equitable supply of water was provided.

If the daily consumption of water could have been kept within the limits of prudent and necessary use the supply of water in the northwestern section of Washington would have been ample for all legitimate purposes.

The time has come when either a thoroughly organized inspection, or the meter system, is an evident necessity.

There are comparatively few premises in the city in which a rigid inspection would not develop the presence of wasteful water-fixtures running continuously night and day. Fixtures will wear out, or get out of order, owners and occupants of premises will delay repairs, and the waste goes on. Taken in the aggregate this waste reaches millions of gallons of water daily passing into the sewers without doing any adequate good. The most serious task encountered in the management of the water supply is that of the prevention of waste. I know of no inspector so efficient and reliable as the water meter—measuring silently the waste, recording data from which payment for same can be justly demanded. If meters are generally introduced, fixtures will be kept in repair, careless servants will be corrected, a large reduction in the consumption will be secured, and the more elevated parts of Washington and Georgetown receive their just proportion of water.

The areas dependent upon the pumping stations in Washington and Georgetown have generally been supplied in a satisfactory manner.

The pumping engines and boilers at the Georgetown station have been kept in good repair. A governor has been connected with the Blake duplex engine to control the pressure of water in the delivery and distribution mains, in the event the old high service reservoir should at any time become unserviceable.

The Gaskill pumping engines and boilers at the U street station have been thoroughly overhauled and the necessary repairs made. It is to be hoped that provision will be made in the near future for commencing work on the new high service station to take the place of the present ones, which have been a constant source of anxiety and care.

During the year 1,286 linear feet of 3-inch, 3,342 linear feet of 4-inch, 88,709½ linear feet of 6-inch, 10,163 linear feet of 12-inch, 2,500 linear feet of 16-inch, and 2,926 linear feet of 20-inch cast-iron water pipe was laid.

There are 1,259 fire hydrants in service; 102 improved hydrants have been erected at new locations, and 1,001 repairs have been made to hydrants during the year.

There are about 1,000 McClelland hydrants of obsolete pattern in use. It has been difficult to keep them in a serviceable condition. They are used daily by persons authorized and unauthorized, other than those connected with the fire and water departments.

Should the present practice be continued of permitting individuals to use the hydrants, who are wholly unacquainted with their construction, a considerable number of the old hydrants will soon become unfit for fire service and will have to be replaced with hydrants of the improved pattern.

I do not think the superintendent of the water department, or the chief engineer of the fire department, should be held responsible in case of either loss of life or property when due to derangement of fire hydrants by persons over which they have no control.

I would recommend that all permits for the use of fire hydrants be issued in the office of the superintendent upon the recommendation of the superintendent and chief engineer of the fire department, subject to the approval of the supervising officer, and that a careful record be kept of all permits issued, so that any injury done to hydrants by persons not connected with the fire and water departments can be easily traced and the damage and responsibility determined.

There are 293 public hydrants in service. Twelve improved hydrants have been erected at new locations, 6 have been abandoned, and 816 repairs have been made to hydrants within the year.

There are 52 drinking fountains for animals in use. Eleven improved fountains have been erected at new locations, 7 of which were furnished by the Humane



# 392 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Society and erected by the water department. One hundred and ninety-one repairs have been made to fountains and the usual attention given to keeping them in proper condition.

These fountains, though inadequate in number, have rendered efficient and valuable service, and were a source of great relief to animals during the extraordinary heated term of the past summer.

I renew my recommendation of last year that an annual appropriation of \$2,000 be provided by Congress for the purchase and replacement of and repairs to drinking fountains for animals. The object and necessity is one that should receive favorable consideration.

There are 270 public pumps and wells in the District. Twenty-nine improved pumps have been erected in place of old ones, and 14 have been removed and the wells filled and abandoned on account of their permanent pollution; 384 repairs have been made to pumps during the year.

I would respectfully call your attention to the imperative necessity of increasing the present number and compensation of the regular employes in the distribution branch of the water department, and would recommend the following estimates for compensation of the present and additional employes for the distribution branch for the year ending June 30, 1894:

1 superintendent (increase \$400)	\$2,000
1 draftsman	1,500
1 foreman (increase \$200)	1,400
1 clerk (increase \$400)	1,400
1 clerk (additional)	1,200
1 clerk (additional)	1,000
1 timekeeper (increase \$200)	1,000
1 assistant foreman	900
1 assistant foreman (additional)	900
1 inspector for superintendent's office (additional)	900
1 tapper and machinist	900
1 assistant tapper	600
4 steam engineers	4,400
2 steam engineers (additional)	2,200
1 extra steam engineer, eight months, at the pumping stations, on account of Sunday work, leaves of absence, and sickness	729
1 blacksmith	750
2 plumbers	1,500
2 assistant machinests (increase \$228)	1,728
1 property keeper (increase \$400)	1,000
6 firemen	4,380
1 extra fireman eight months at pumping stations, on account of leaves of absence and sickness	485
1 calker	730
2 flushers	1,080
1 flusher (additional)	540
3 laborers	1,500
1 driver	480
1 watchman	480
1 watchman (additional)	480
1 hostler	480
2 inspectors of cast-iron water pipe and special castings (increase \$500)	2,000
Total	38,642
Salaries, pump division:	
1 foreman of pump division	936
1 assistant foreman of pump division	600
	1,536

The following tabulated statement will show the details of operations of this department during the year.

Very respectfully, your obedient servant,

H. F. HAYDEN,  
Superintendent Water Department.

Capt. WM. T. ROSSELL,  
Corps of Engineers, U. S. Army,  
Engineer Commissioner, District of Columbia.

During the year 1,286 feet of 3-inch, 3,342 feet 4-inch, 88,709½ feet 6-inch, 10,163 feet 12-inch, 2,500 feet 16-inch, and 2,926 feet 20-inch cast-iron water main pipe was laid.

## WATER MAINS.

Location.	Street or avenue.	Streets between.	Size of pipe.	Length of main.	
			<i>Inch.</i>	<i>Lin. ft.</i>	
In alley.....	Third and Four-and-a-half.	H and I SW .....	3	156	
Do.....	Four-and-a-half and Sixth.	.....do .....	3	463	
Do.....	Twenty-sixth and Twenty-seventh.	K and L NW .....	3	184	
Do.....	Eighth and Ninth.....	G and H NE.....	3	294	
Do.....	Fifteenth and Sixteenth.	L and M NW.....	3	160	
Do.....	Four-and-a-half and Sixth.	G and H SW.....	4	283	
Center.....	Florence court .....	F and G NE .....	4	504	
In alley.....	Seventeenth and Eighteenth.	D and E NW .....	4	744	
Do.....	Twelfth and Thirteenth.	S and T NW.....	4	312	
Do.....	Twenty-second and Twenty-third.	L and M NW.....	4	313	
Do.....	Sixth and Seventh.....	G and I SE .....	4	281	
South side.....	C street.....	First and Delaware avenue .....	}	4	380
In alley.....	First and Delaware avenue.	C and Canal SW .....			
North and south side.	M street .....	First and New Jersey avenue SE.....	6	936	
Do.....	do .....	Half and First .....	}	6	2,299
East and west side.	Half street.....	M and N SE .....			
Do.....	Fourth street .....	L and M SE .....	}	6	668
Do.....	Twelfth street .....	B and C.....			
North and south side.	C street.....	Eleventh and Twelfth SE.....	}	6	1,814
Do.....	Massachusetts avenue.	Eighth and Ninth .....			
East and west side.	Eighth street .....	Massachusetts avenue and A NE.....	}	6	1,247
East and west side.	Fourteenth street.....	Bacon and Columbia NW .....			
Center.....	Kenesaw avenue.....	Fourteenth and Sixteenth extended NW .....	6	1,270	
Do.....	Roanoke street .....	Thirteenth and Fourteenth extended NW.	6	647	
East and west side.	Fourteenth street extended.	Bacon and Binney NW .....	6	608	
Center.....	Euclid place .....	Fourteenth extended and University Place NW.	6	517	
Do.....	Clifton street .....	Thirteenth and Fourteenth extended NW.	6	637	
North and south side.	E street.....	First and Second SE.....	}	6	2,562
East and west side.	Second street.....	E and Heckman SE.....			
Center.....	Heckman street .....	First and Second SE.....	}	6	1,366
East side.....	First street .....	E and Heckman SE.....			
North and south side.	K street .....	Eleventh and Twelfth NE .....	}	6	800
West side.....	Eleventh street.....	K and Florida avenue NE .....			
South side.....	Florida avenue .....	Eleventh and Twelfth NE.....	}	6	839
East and west side.	North Capitol street..	New York avenue and O.....			
Do.....	Third street .....	R and Florida avenue NW .....	}	6	232
South side.....	Florida avenue.....	Third and Le Droit avenue NW .....			
Do.....	K street .....	Twelfth and Florida avenue NE.....	}	6	1,226
Center.....	Linden street.....	Pomeroy and Wilson NW .....			
Do.....	Wilson street.....	Linden and Moore's Lane NW .....	}	6	244
North side.....	I street .....	Thirteenth and Florida avenue NE .....			
Do.....	R street .....	Florida avenue and First NW .....	}	6	2,230
North and south side.	do .....	First and Lincoln NW .....			
Do.....	do .....	Twenty-second and Circle NW .....	6	949	
Do.....	I street .....	Second and Third SW .....	6	802	
North side.....	K street .....	Twenty-seventh and Thirtieth NW .....	6	850	
Center.....	Columbia avenue .....	Eighteenth and Quarry Road NW .....	6	1,579	
West side.....	Eighteenth street.....	Columbia and Wyoming NW .....	6	1,258	
North and south side.	G street .....	Third and Fourth NE .....	6	811	
South side.....	Wyoming avenue.....	Eighteenth and Nineteenth NW .....	6	778	
East side.....	Second street .....	E and California NE.....	6	246	
Do.....	Connecticut avenue.....	R and S NW .....	6	335	
North and south side.	R street .....	Eighteenth and New Hampshire avenue NW.	6	382	
South side.....	P street.....	Twelfth and Iowa Circle NW .....	6	215	
East and west side.	Twelfth street.....	G and H NE.....	6	942	
East side.....	do .....	N and O NE .....	6	300	
North and south side.	Q street.....	First and Florida avenue NW .....	6	1,258	

## WATER MAINS—Continued.

Location.	Street or avenue.	Streets between.	Size of pipe.	Length of main.
			Inches.	Lin. ft.
East and west side.	Ninth street .....	C and D NE .....	8	781
North side .....	A street .....	Tennessee and North Carolina avenue NE.	6	179
Center .....	Bladensburg road .....	H and Mount Olivet Cemetery NE .....	6	2,823
West side .....	Thirty-sixth street .....	N and O NW .....	6	341
East and west side.	do .....	Prospect and N NW .....	6	486
Center .....	Harrison street .....	Minnesota avenue and Monroe, Anacostia .....	6	1,239
Do .....	Pierce street .....	Harrison and Jefferson, Anacostia .....	6	1,446
Do .....	Jackson street .....	Pierce and Monroe, Anacostia .....	6	1,064
Do .....	Fillmore street .....	Harrison and Jefferson, Anacostia .....	6	970
Do .....	Washington street .....	Pierce and Monroe, Anacostia .....	6	1,099
Do .....	Jefferson street .....	do .....	6	1,135
Do .....	Monroe street .....	Harrison and Jefferson, Anacostia .....	6	977
East and west side.	Seventh street .....	L and Florida avenue NE .....	6	1,149
West side .....	First street .....	R and Randolph NW .....	6	202
Do .....	U street .....	Thirty-second and Thirty-fifth NW .....	6	755
East and west side.	Water street .....	M and N SW .....	}	1,471
North side .....	N street .....	Sixth and Water SW .....		
Do .....	A street .....	Eleventh and Twelfth NE .....	6	376
North and south side.	G street .....	Fifteenth and Florence court NE .....	6	534
West side .....	New Hampshire avenue.	Seventeenth and S NW .....	}	566
Do .....	Seventeenth street .....	New Hampshire avenue and T NW .....		
North and south side.	V street .....	Fifteenth and Portner NW .....	6	573
West side .....	Seventh street .....	Florida avenue and Pomeroy NW .....	6	1,013
Center .....	Madison street .....	Seventeenth and Eighteenth NW .....	6	702
Do .....	Fourteenth street .....	Whitney and Howard .....	}	2,804
Do .....	Howard avenue .....	Fourteenth and Seventeenth extended NW.		
Do .....	Sixteenth street .....	Park and Howard NW .....	6	600
North and south side.	Q street .....	Eleventh and Twelfth NW .....	6	440
Center .....	Seventeenth street extended.	Park, north on Seventeenth extended NW.	6	707
North and south side.	K street .....	Second and Third NE .....	6	896
Center .....	G street .....	Eighth and Ninth NE .....	6	651
South side .....	Massachusetts avenue .....	First and Second NE .....	6	725
East and west side.	Twenty-second street .....	Massachusetts avenue and R NW .....	6	710
Center .....	Columbia avenue .....	Sixteenth and Quarry Road NW .....	12	638
Do .....	Minnesota avenue .....	Pennsylvania avenue and Harrison street.	12	7,799
Do .....	Kentucky avenue .....	D to Pennsylvania avenue SE .....	16	2,500
Do .....	Eleventh street .....	East Capital and A SE .....	}	2,926
Do .....	A street .....	Eleventh and Kentucky avenue SE .....		
Do .....	Kentucky avenue .....	A and D SE .....	20	

*Water mains laid from funds deposited by applicants.*

Location.	Street or avenue.	Streets between.	Size.	Length main.
			Inch.	Lin. ft.
North and south side.	New York avenue .....	Fourteenth and Fifteenth NW .....	4	474
West side .....	Fourteenth street .....	Florida avenue and T .....	6	979
Do .....	do .....	K and New York avenue NW .....	6	1,720
East and west side.	do .....	T and K NW .....	6	1,535
West side .....	do .....	Pennsylvania avenue and D NW .....	6	8,786
South side .....	Pennsylvania avenue .....	Nineteenth and Twentieth NW .....	6	553
West side .....	First street .....	Pennsylvania avenue and B NW .....	6	446
East and west side.	do .....	B and C NW .....	6	428
North and south side.	C street .....	First and New Jersey avenue NW .....	6	980
South side .....	Pennsylvania avenue .....	Seventeenth and Eighteenth NW .....	6	804
Do .....	B street .....	First and Pennsylvania avenue SE .....	6	685
Do .....	Pennsylvania avenue .....	Second and Seventh SE .....	6	737
Center .....	Quarry road .....	Columbia to Zoological Park .....	6	1,656
West side .....	Eighth street .....	G and M SE .....	6	3,178
East side .....	do .....	do .....	6	1,887
			12	1,726
Total .....			10	103,721



One thousand eight hundred and fifty-six and one-half linear feet of 6-inch cast-iron pipe was used in the erection of new fire hydrants.

*Intersections laid on streets specified to be improved.*

Location.	Size of pipe.	Length of main.
	Inches.	Lin. feet.
New York avenue and North Capitol street.....	6	138
Eighteenth and S streets NW.....	6	42
New York avenue and First street NE.....	6	222
North Capitol and L streets NE.....	6	93
North Capitol and Pierce streets.....	6	63
Massachusetts avenue and Fourth street NE.....	6	48
Sixth and D streets NE.....	6	48
Eighth and D streets SE.....	6	27
Ninth and D streets SE.....	6	51
North Capitol and M streets NW.....	6	33
North Carolina avenue and Eleventh street SE.....	6	44
North Carolina avenue and Tenth street SE.....	6	29
Eleventh and C streets SE.....	6	29
Massachusetts avenue and F street NE.....	6	60
Thirty-first and N streets and Thirty-first between M and N streets NW.....	4	12
Twenty-second and N, Twenty-third and N, and Twenty-fourth and N streets NW.....	6	270
Tenth and S streets and Tenth and Westminster streets NW.....	6	47
Twentieth and R streets NW.....	6	24
Eighteenth and Lawrence streets NW.....	6	51
Thirty-sixth and N and Thirty-sixth and Prospect streets NW.....	6	323
Thirtieth and N streets NW.....	4	3
Dunbarton avenue and Twenty-ninth street NW.....	4	23
Madison and N streets NW.....	6	34
New Jersey avenue, between L and Pierce streets NW.....	6	111
In alley, Sixth and Seventh and G and I SE. (for blow-off).....	3	29
New Jersey avenue and D street NW. (blow-off).....	4	13
Eighteenth and R streets NW.....	6	216
New Hampshire avenue and R street NW.....	6	51
Massachusetts and Delaware avenues NE.....	6	60
Second street between Virginia avenue and I and north side I and Second streets SE.....	6	103
I between Second and Third streets SE.....	6	22
Le Droit Park from Florida avenue to Thomas street NW.....	6	451
First and Randolph and First and S streets NW.....	6	209
Twenty-first and R and Florida avenue and R street NW.....	6	132
Maryland avenue and Thirteenth street, Thirteenth and F streets, alley, Thirteenth, between F and Emerson streets, and Emerson and Thirteenth streets NE.....	6	238
Total.....		3,349

*Four way branches connected to water mains.*

Location.	No.	Size.
		Inches.
Center Thirty-second and U streets NW.....	1	10 by 6
Center Messmore and Columbia streets NW.....	1	12 by 6
Center Minnesota avenue; 3,800 feet from center Harrison.....	1	12 by 6
Center Minnesota avenue; 800 feet from center Harrison street.....	1	12 by 6
Center Minnesota avenue; 500 feet from center Harrison.....	1	12 by 6
Center Minnesota avenue; 1,200 feet from center Harrison street.....	1	12 by 6
Center Minnesota avenue and Naylor road.....	1	12 by 6
Center Minnesota avenue; 2,800 feet from center Harrison street.....	1	12 by 6
Pennsylvania avenue between railroad and Minnesota avenue.....	1	12 by 6
Center railroad and Pennsylvania avenue.....	2	12 by 6
Center Harrison street and Minnesota avenue.....	1	12 by 12
Center Pennsylvania, west side Minnesota avenue.....	1	12 by 12
Center Kentucky avenue and E street SE.....	1	16 by 6
Center Kentucky avenue and G street SE.....	1	16 by 6
Center Kentucky avenue and Seventeenth street SE.....	1	16 by 6
Center Kentucky avenue and D street SE.....	1	16 by 12
South side A street, center Kentucky avenue SE.....	1	20 by 6
Center Kentucky avenue and B street SE.....	1	20 by 6
Center Kentucky avenue and South Carolina avenue SE.....	1	20 by 6
Center Kentucky avenue and C street SE.....	1	20 by 6

*Four way branches set at expense of applicants.*

Location.	No.	Size.
		<i>Inches.</i>
Center G, east side Eighth street SE .....	1	12 by 6
Center I, east side Eighth street SE .....	1	12 by 6
Center K, east side Eighth street SE .....	1	12 by 6
East side Eighth, center L street SE .....	1	12 by 6
West side Fourteenth, center U street NW .....	1	12 by 6
East side Fourteenth, center U street NW .....	1	12 by 6
Center Virginia avenue, east side Eighth street SE .....	1	12 by 12
North side Pennsylvania avenue, center Fourteenth street NW .....	1	24 by 12

*Y branches connected to water mains.*

Northeast corner First and M streets SE .....	1	6
Southeast corner First and M streets SE .....	1	6
Southwest corner First and M streets SE .....	1	6
Northwest corner First and M streets SE .....	1	6
Southeast corner One-half and M streets SE .....	1	6
Northeast corner One-half and M streets SE .....	1	6
Southwest corner One-half and M streets SE .....	1	6
Northwest corner Twelfth and C streets SE .....	1	6
Southwest corner Twelfth and C streets SE .....	1	6
Northeast corner Twelfth and C streets SE .....	1	6
Northwest corner North Capitol street and New York avenue NW .....	1	6
Northeast corner North Capitol street and New York avenue NW .....	1	6
Northwest corner First and R streets NW .....	1	6
Northeast corner First and R streets NW .....	1	6
Northeast corner North Capitol and R streets NW .....	1	6
Southwest corner North Capitol and R streets NW .....	1	6
Southeast corner North Capitol and R streets NW .....	1	6
Northwest corner Twenty-second and R streets NW .....	1	6
Southwest corner Twenty-second and R streets NW .....	1	6
Northeast corner Fifteenth and V streets NW .....	1	6
Southeast corner Fifteenth and V streets NW .....	1	6
Southeast corner Twenty-second and R streets NW .....	1	6
Center Kentucky and Pennsylvania avenues SE .....	1	16

*Tees connected to water mains.*

In alley between Twenty-sixth and Twenty-seventh and K and L streets, NW .....	1	3
In alley between Four-and-a-half and Sixth and H and I streets SW .....	1	3
In alley between Fifteenth and Sixteenth and L and M streets NW .....	1	3
In alley between Sixth and Seventh and G and I streets SE .....	1	3
In alley between C and Canal and First streets and Delaware avenue SW .....	1	4
In alley between Four-and-a-half and Sixth and G and H streets SW .....	1	4
In alley between Seventeenth and Eighteenth and D and E streets NW .....	3	4
Center 30-foot alley between S and T and Twelfth and Thirteenth streets NW .....	1	4
In alley between Twenty-second and Twenty-third and L and M streets NW .....	2	4
Center Dunbarton avenue, west side Twenty-ninth street NW .....	1	4
Northwest corner New Jersey avenue and D street NW .....	1	4
Northwest corner Twenty-seventh and K streets NW .....	1	4 by 6
West side K, center Thirtieth street NW .....	1	4 by 6
South side Massachusetts avenue between Second and Third streets NW .....	1	4 by 6
South side Massachusetts avenue between Sixth and Seventh streets NW .....	1	4 by 6
Center Louisiana avenue between Sixth and Seventh streets NW .....	1	4 by 6
Northwest corner New Jersey avenue and M street SE .....	1	6
Northeast corner First and M streets SE .....	1	6
West side New Jersey avenue, center M street SE .....	1	6
Northeast corner One-half and M streets SE .....	1	6
North side N, center One-half street SE .....	1	6
North side M, center Fourth Street SE .....	1	6
Northwest corner Fourth and M streets SE .....	1	6
South side B, center Twelfth street SE .....	1	6
Northwest corner, Twelfth and C streets SE .....	1	6
North side A, center Eighth street NE .....	1	6
Northwest corner Ninth street and Massachusetts avenue NE .....	1	6
Northwest corner Fourteenth and Bacon streets NW .....	1	6
Center Kennesaw avenue, between Fourteenth and Fifteenth streets NW .....	1	6
Center Kennesaw avenue, east side Fifteenth street NW .....	1	6
Center Kennesaw avenue, east side Sixteenth street NW .....	1	6
Center Roanoke, west side Thirteenth street NW .....	1	6
East side University, center Euclid NW .....	1	6
Center Thirteenth, north side Clifton street NW .....	1	6
Center Heckman, east side First street SE .....	1	6
Northeast corner First and Heckman streets SE .....	1	6

*Tees connected to water mains—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
West side Second, center Heckman street SE.....	1	6
South side E, between First and Second streets SE.....	1	6
West side Second, center E street SE.....	1	6
South side E, center Second street SE.....	1	6
West side Twelfth, center K street NE.....	1	6
East side Eleventh, center K street NE.....	1	6
Northeast corner Eleventh and K streets NE.....	1	6
North side K, center Eleventh street NE.....	1	6
Southwest corner Eleventh street and Florida avenue NE.....	1	6
Southeast corner Eleventh and Florida avenue NE.....	1	6
North side Florida avenue, between Eleventh and Twelfth streets NE.....	1	6
Southwest corner North Capitol and O streets NW.....	1	6
South side O, center North Capitol street NW.....	1	6
North side R, center Third street NW.....	1	6
Southwest corner Third and Florida avenue NW.....	1	6
Southeast corner Third and Florida avenue NW.....	2	6
Center Wilson, near lane.....	1	6
Southeast corner First and R streets NW.....	1	6
Northwest corner North Capitol and R streets NW.....	2	6
Northwest corner First and R streets NW.....	1	6
Northwest corner Twenty-second and R streets NW.....	1	6
Northwest corner Second and I streets SW.....	1	6
East side Third, center I street SW.....	1	6
West side Second, center I street SW.....	1	6
Northeast corner Twenty-eighth and K streets NW.....	1	6
Center Columbia and Ontario streets NW.....	1	6
Center Columbia and Champlain streets NW.....	1	6
Center Columbia, east side Ontario street NW.....	1	6
Center Columbia and Adams streets NW.....	1	6
Center Columbia street and Central avenue NW.....	1	6
Northwest corner Eighteenth and Belmont streets NW.....	1	6
Northwest corner Eighteenth street and Wyoming avenue NW.....	1	6
Southwest corner Eighteenth and Columbia streets NW.....	1	6
Northwest corner Fourth and G streets NE.....	1	6
West side Fourth, center G street NE.....	1	6
East side Third, center G street NE.....	1	6
Southeast corner Nineteenth street and Wyoming avenue NW.....	1	6
East side Second, center E street NE.....	1	6
Northwest corner New Hampshire avenue and R street NW.....	1	6
South side P street, east side Iowa Circle NW.....	1	6
North side G, center Twelfth street NE.....	1	6
South side H, center Twelfth street NE.....	1	6
Southeast corner Twelfth and H streets NE.....	1	6
East side Twelfth, center James street NE.....	1	6
East side Twelfth, between G and H streets NE.....	1	6
South side O, center Twelfth street NE.....	1	6
East side First, center Q street NW.....	1	6
South side Q street, between First street and Florida avenue NW.....	1	6
Southwest corner Ninth and D streets NE.....	1	6
North side A street, center Tennessee avenue, NE.....	1	6
Center Bladensburg road, south side Mount Olivet, NE.....	1	6
Center Levis street, west side of Bladensburg road, NE.....	1	6
Center King street and Bladensburg road, NE.....	1	6
Center Levis street and Bladensburg road, NE.....	1	6
Center Harrison, west side Pierce street, Anacostia.....	1	6
Center Harrison, west side Fillmore street, Anacostia.....	1	6
Center Harrison, east side Monroe street, Anacostia.....	1	6
South side Washington, center Pierce street, Anacostia.....	1	6
North side Jefferson, center Pierce street, Anacostia.....	1	6
Center Jackson, west side Fillmore street, Anacostia.....	1	6
Center Jackson, west side Pierce streets, Anacostia.....	1	6
South side Washington, center Fillmore street, Anacostia.....	1	6
North side Jefferson, center Fillmore street, Anacostia.....	1	6
Center John and Monroe street, Anacostia.....	1	6
Center John, west side Monroe street, Anacostia.....	1	6
Center Monroe, north side Buchanan street, Anacostia.....	1	6
Center Navy place, west side Monroe street, Anacostia.....	1	6
West side Seventh, center L street NE.....	1	6
North side L, center Seventh street NE.....	1	6
Southwest corner Seventh street and Florida avenue NE.....	1	6
Center Thirty-fifth and U streets NW.....	1	6
East side Thirty-fifth, center U street NW.....	1	6
East side Thirty-fourth, center U street NW.....	1	6
West side Water, center M street, SW.....	1	6
West side Water, between M and N streets SW.....	1	6
Southeast corner Water and M street SW.....	1	6
West side Water, center N street SW.....	1	6
Northwest corner Twelfth and A streets NE.....	1	6
Northwest corner Fifteenth and G streets NE.....	1	6
North side T, west side Seventeenth street NW.....	1	6



*Tees connected to water mains—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
West side New Hampshire avenue, between Seventeenth and T street NW	1	6
West side New Hampshire avenue, between S and Seventeenth street NW	1	6
West side Portner, center V street NW	1	6
South side Florida avenue, west side Seventh street NW	1	6
West side Seventh, center Pomeroy street NW	1	6
East side Eighteenth, center Madison street NW	1	6
East side Eighteenth, near H, corner Madison street NW	1	6
Center Fourteenth, south side Sheridan street NW	1	6
Center Howard, west side Fourteenth street NW	1	6
Center Howard, west side Center street NW	1	6
Center Howard, between Fourteenth and Center street NW	1	6
East side Brown, center Howard street NW	1	6
West side Sixteenth, center Howard street NW	1	6
East side Seventeenth, center Howard street NW	1	6
North side Park, center Seventeenth street NW	1	6
East side Second, center K street NE	1	6
West side Third, center K street NE	1	6
Northwest corner Third and K streets NE	1	6
Northwest corner Ninth and G streets NE	1	6
West side Ninth, center G street NE	1	6
East side Eighth, center G street NE	1	6
Center First street, south side Massachusetts avenue NE	1	6
North side Massachusetts avenue, center Twenty-second street NW	1	6
West side Eighteenth, center Lawrence street NW	1	6
South side S, center Eighteenth street NW	1	6
East side North Capitol, center Pierce street NE	1	6
North side D, center Eighth street SE	1	6
East side Twenty-fourth, center N street NW	1	6
West side Twenty-second, center N street NW	1	6
North side N, center Thirty-sixth street NW	1	6
South side N, center Thirty-sixth street NW	1	6
North side Prospect, center Thirty-sixth street NW	1	6
Center Madison and N streets NW	1	6
East side New Jersey avenue, between L and Pierce streets NW	1	6
North side M, center Thirty-second street NW	1	6
Center Sixth, south side Massachusetts avenue NW	1	6
North side R, center Eighteenth street NW	1	6
East side Eighteenth, center R street NW	1	6
South side R, center Eighteenth street NW	1	6
West side New Hampshire avenue, center R street NW	1	6
North side Florida avenue, center Le Droit avenue NW	1	6
Center Seaton, east side Le Droit avenue NW	1	6
Center Second between I street and Virginia avenue SE	1	6
East side Fourteenth street, center Ohio avenue NW	1	6
Northeast corner New Hampshire avenue and Corcoran street NW	1	6
Center Corcoran, west side Seventeenth street NW	1	6
Center Q, between Seventeenth and Eighteenth streets NW	1	6
Northeast corner Twentieth street and Massachusetts avenue NW	1	6
North side New York avenue, between Fourteenth and Fifteenth streets NW	1	6
East side Sixteenth, center E street NW	1	6
Southwest corner Twentieth and P streets NW	1	6
Southwest corner Twentieth and O streets NW	1	6
Southwest corner Seventh street and Virginia avenue SW	1	6
Northeast corner Fourteenth and East Capitol streets	1	6
Center Pierce, between First and North Capitol streets NW	1	6
Northeast corner New Jersey avenue and Pierce street NW	1	6
Center Ridge, between Fourth and Fifth streets NW	1	6
Center Quarry road and Poplar street NW	1	6
Center Second, north side H street SW	1	6
Center Eighth, south side D streets SW	1	6
East side Four-and-a-half, center H street SW	1	6
North side H, center Third street SW	1	6
Center Second, between F and G streets NW	1	6
Southwest corner Nineteenth and B street SE	1	6
East side Minnesota avenue, center Naylor road, Twining City	1	6
Center Pennsylvania avenue, east side Railroad avenue, Twining City	1	6
Center T street, east side Le Droit avenue NW	1	6
Center and west side Minnesota avenue, Twining City	1	6
East side Minnesota avenue, center Seventeenth street, Twining City	1	6
East side Minnesota avenue, center T street, Twining City	1	6
South side F, between Sixth and Seventh streets NW	1	6
Center Indiana avenue, between Four and Four-and-a-half streets NW	1	6
South side N, center Kirby street NW	1	6
Northeast corner New Hampshire avenue and S street NW	1	6
Southwest corner First and F streets NW	1	6
Center G, between Fourth and Fifth streets NW	1	6
Center Twentieth, north side S street NW	1	6
Center R, east side Twenty-first street NW	1	6
Center Third street, south side New York avenue NW	1	6
Northeast corner Fifteenth and V streets NW	1	6

*Tees connected to water mains—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
Center Randolph, east side First street NW	1	6
Center Randolph, west side First street NW	1	6
Center R, west side Twenty-first street NW	1	6
Center R street, east side Florida avenue NW	1	6
South side Maryland avenue, center Thirteenth street NE	1	6
East side Thirteenth, between F and Emerson streets NE	1	6
Center H, between Four-and-a-half and Sixth streets SW	1	6 by 3
North side G, between Eighth and Ninth streets NE	1	6 by 3
Southeast corner First and Canal streets SW	1	6 by 4
Center G, between Four-and-a-half and Sixth streets SW	1	6 by 4
Center Florence, south side G street NE	1	6 by 4
West side Twelfth, between S and T streets NW	1	6 by 4
East side Twenty-third, between L and M streets NW	1	6 by 4
South side G, between Eighth and Ninth streets NE	1	6 by 4
East side Tenth, center Westminster street NW	1	6 by 4
South side Pennsylvania avenue, southeast corner reservation near Ninth street NW	1	8 by 6
Center Thirty-second and U streets NW	1	10 by 6
Center Quarry and Columbia NW	1	12 by 6
Minnesota avenue, 2,000 feet from center Harrison, Twining City	1	12 by 6
Minnesota avenue, 4,200 feet from center Harrison, Twining City	1	12 by 6
Center Pennsylvania avenue and Davison street, Twining City	1	12 by 6
Center Twenty-ninth street and Dumbarton avenue NW	1	12 by 6
Center Pennsylvania avenue, between Railroad avenue and Davison street, Twining City	1	12 by 8
Center Thirty-second and M streets NW	1	12 by 12
Center Thirty-second, between T and U streets, NW	1	12 by 12
Center Eleventh, south side East Capitol street SE	1	20 by 6
Total	227	

*Tees set at expense of applicants.*

		<i>Inches.</i>
Center Fifteenth street, south side Pennsylvania avenue NW	1	4
Center Second, between C and D streets SE	1	4
Northwest corner C street and New Jersey avenue NW	1	4x6
South side Pennsylvania avenue, center Sixth street SE	1	6
West side Eighth, center M street SE	1	6
Northeast corner Fourteenth and S streets NW	1	6
Center Fourteenth and R streets NW	1	6
West side Fourteenth street, north side Rhode Island avenue NW	1	6
North side U, west side Fourteenth street NW	1	6
South side L, center Fourteenth street NW	1	6
East side Fourteenth, center Riggs street NW	1	6
South side R, center Fourteenth street NW	1	6
Northeast corner Fourteenth and Q streets NW	1	6
East side Fourteenth, center Q street NW	1	6
West side Fourteenth, center Samson street NW	1	6
West side Fourteenth, between Circle and N streets NW	1	6
Center Vermont avenue and Fourteenth street NW	1	6
Northeast corner Fourteenth and K streets NW	1	6
West side Fourteenth street, south side Vermont avenue NW	1	6
South side Circle, center Fourteenth street NW	1	6
Northeast corner Fourteenth and R streets NW	1	6
West side Fourteenth, center L street NW	1	6
Northeast corner Fourteenth and H streets NW	1	6
Center Fifteenth street, north side Pennsylvania avenue NW	1	6
Center Fourteenth street, south side New York avenue NW	1	6
Center D, west side Fourteenth street NW	1	6
Center Twentieth, south side Pennsylvania avenue NW	1	6
North side Pennsylvania avenue, west side First street NW	1	6
South side C, center First street NW	1	6
East side First, south side C streets NW	1	6
Southwest corner New Jersey avenue and C street NW	1	6
Center First, south side of Indiana avenue NW	1	6
Center First, north side of Indiana avenue NW	1	6
Center John, west side Monroe street, Anacostia	1	6
East side South Capitol, center I streets, SE	1	6
West side of New Jersey avenue, between B and C streets SE	1	6 by 2
Northeast corner Fifteenth and E streets NE	1	6 by 2
East side, Fourteenth between L and M streets NW	1	6 by 3
Fourteenth, between Circle and N street NW	1	6 by 3
West side Second, between C and D streets NE	1	6 by 3
Center Ninth, between K and L streets NW	1	6 by 3
West side Fourteenth, between K and L streets NW	1	6 by 3
Center Fifth, south side T street	1	6 by 3
Center G, between Sixth and Seventh streets NW	1	6 by 3

*Tees set at expense of applicants—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
West side Eighth, between L and M streets SE.....	1	6 by 3
Center Fifth, between G and H streets NW.....	1	6 by 3
Southwest corner Fourteenth and K streets NW.....	1	6 by 4
North side P, between Twenty-fourth and Twenty-fifth streets NW.....	1	6 by 4
Center Seventeenth, south side Pennsylvania avenue NW.....	1	6 by 4
South side Pennsylvania avenue, center Seventh NW.....	1	6 by 8
South side Pennsylvania avenue near southwest corner Fourteenth NW.....	1	8 by 6
East side Eighth, between G and I streets SE.....	1	12 by 6
West side Fourteenth, between Kennesaw and Park NW.....	1	12 by 6
Center Fourteenth street and Pennsylvania avenue NW.....	1	12 by 12
Total .....	54	

*Reducers, connected to water mains.*

Center Navy Place, between Sixth and Seventh and G and I streets SE.....	1	4 by 3
Center Thirty-sixth and O streets NW.....	1	6 by 4
Center Thirty-sixth and N Streets NW.....	2	6 by 4
Center Thirty-sixth and Prospect streets NW.....	3	6 by 4
Center Twenty-ninth street and Dumbarton avenue NW.....	1	6 by 4
Center Pennsylvania avenue, between Railroad avenue and Davison street, Twining City.....	1	8 by 6
Center Thirty-second and U streets NW.....	1	10 by 6
Center Harrison street and Minnesota, Twining City.....	2	12 by 6
West end Pennsylvania avenue Bridge SE.....	1	16 by 12
Center Kentucky avenue and D street SE.....	2	20 by 16
Center Eleventh and East Capitol SE.....	1	30 by 20
Total .....	16	

*Reducers, set at expense of applicants.*

West side Fourteenth street, between Kennesaw avenue and Park street NW.....	1	6 by 3
South side Pennsylvania avenue, center Second street SE.....	2	6 by 4
East side Eighth, between G and I streets SE.....	1	6 by 4
South side Pennsylvania avenue, center Seventh street NW.....	1	6 by 4
Northwest corner First and Pennsylvania avenue NW.....	1	12 by 6
Total .....	6	

*Bends connected to water mains.*

In alley Twenty-sixth and Twenty-seventh and K and L streets NW.....	1	3
In alley Fifteenth and Sixteenth and L and M streets NW.....	1	3
In alley Sixth and Seventh and G and I streets SE.....	2	3
Southeast corner C and Canal streets SW.....	1	4
South side C, between First and Canal streets SW.....	1	4
Northwest corner New Jersey avenue and D street NW.....	1	4
Center Sixth, south side Massachusetts avenue NW.....	2	4
Center Twenty-ninth and Dumbarton avenue NW.....	1	4
Northwest corner New Jersey avenue and M street SE.....	1	6
Southwest corner New Jersey avenue and M street SE.....	1	6
Northwest corner One-half and N streets SE.....	1	6
Northeast corner One-half and N streets SE.....	1	6
Northwest corner Fourth and M streets SE.....	1	6
Northeast corner Fourth and M streets SE.....	1	6
Southwest corner Fourth and L streets SE.....	1	6
Southeast corner Fourth and L streets SE.....	1	6
Southwest corner Twelfth and B streets SE.....	1	6
Southeast corner Twelfth and B streets SE.....	1	6
Northeast corner Eleventh and C streets SE.....	1	6
Southeast corner Eleventh and C streets SE.....	1	6
Northwest corner Eighth and A streets NE.....	1	6
Northeast corner Eighth and A streets NE.....	1	6
Southeast corner Eighth and Massachusetts avenue NE.....	1	6
Southwest corner Ninth and Massachusetts avenue NE.....	1	6
Northeast corner Eighth and Massachusetts avenue NE.....	1	6
Southeast corner Eighth and B streets NE.....	1	6



*Bends connected to water mains—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
South side B. center Eighth street NE.....	1	6
Center Kennesaw between Fourteenth and Fifteenth streets NW.....	1	6
Center Roanoke, east side Fourteenth streets NW.....	1	6
North side E. between First and Second streets SE.....	1	6
Southeast corner First and E streets SE.....	1	6
Northwest corner Second and E streets SE.....	1	6
Southwest corner Second and E streets SE.....	1	6
Southeast corner Second and E streets SE.....	1	6
Northwest corner Twelfth and K streets NE.....	1	6
Southwest corner Twelfth and K streets NE.....	1	6
Southeast corner Eleventh and K streets NE.....	1	6
Northeast corner Eleventh and K streets NE.....	1	6
South side Florida avenue, between Eleventh and Twelfth streets NE.....	1	6
Center North Capitol and O streets.....	2	6
Southwest corner North Capitol and O streets NW.....	1	6
Southeast corner North Capitol and O streets NE.....	1	6
Northwest corner North Capitol street and New York avenue NW.....	1	6
Northwest corner Third and R streets NW.....	1	6
Northeast corner Third and R streets NW.....	1	6
Center Linden and Pomeroy streets NW.....	1	6
Southeast corner Twelfth and K streets NE.....	1	6
Southwest corner K and Florida avenue NE.....	1	6
Northeast corner Thirteenth and I streets NE.....	1	6
Northwest corner North Capitol and R streets NW.....	1	6
Southeast corner First and R streets NW.....	1	6
Southeast corner First and Canal streets SW.....	1	6
Southeast corner Circle and R street extended NW.....	2	6
Northwest corner Second and I streets SW.....	1	6
Southwest corner Second and I streets SW.....	1	6
Southeast corner Third and I streets SW.....	1	6
Northeast corner Third and I streets SW.....	1	6
North side K, center Thirtieth streets NW.....	1	6
Northwest corner Twenty-seventh and K streets NW.....	1	6
North side K, west side Bridge NW.....	2	6
North side K, east side Bridge NW.....	2	6
North side K, between Twenty-seventh and Twenty-ninth streets NW.....	3	6
Southwest corner Eighteenth and Columbia streets NW.....	1	6
Northwest corner Fourth and G streets NE.....	1	6
Southwest corner Fourth and G streets NE.....	1	6
Southeast corner Third and G streets NE.....	1	6
Northeast corner Third and G streets NE.....	1	6
East side Connecticut avenue, center S street NW.....	1	6
Northwest corner New Hampshire avenue and R street NW.....	1	6
Northeast corner Eighteenth and R streets NW.....	1	6
Southeast corner Eighteenth and R streets NW.....	1	6
Southwest corner New Hampshire avenue and R street NW.....	1	6
Southwest corner Twelfth and P streets NW.....	1	6
West side Twelfth, center P street NW.....	1	6
Northwest corner Twelfth and G streets NE.....	1	6
Northeast corner Twelfth and G streets NE.....	1	6
Southwest corner Twelfth and H streets NE.....	1	6
Southeast corner Twelfth and H streets NE.....	1	6
Northeast corner First and Q streets NW.....	1	6
Southeast corner First and Q streets NW.....	1	6
North side Q, between First and Florida avenue NW.....	1	6
Northwest corner Ninth and C streets NE.....	1	6
Northeast corner Ninth and C streets NE.....	1	6
Southwest corner Ninth and D streets NE.....	1	6
Southeast corner Ninth and D streets NE.....	1	6
North side A, center Tennessee avenue NE.....	1	6
Northwest corner Thirty-sixth and N streets NW.....	1	6
Southwest corner Thirty-sixth and O streets NW.....	1	6
South side O, center Thirty-sixth street NW.....	1	6
Northwest corner Thirty-sixth and Prospect streets NW.....	1	6
Northeast corner Thirty-sixth and Prospect streets NW.....	1	6
Southeast corner Thirty-sixth and N streets NW.....	1	6
Southwest corner Thirty-sixth and N streets NW.....	1	6
Center Harrison, west side Minnesota avenue, Anacostia.....	1	6
Southeast corner Jackson and Market streets, Anacostia.....	1	6
Northwest corner Jackson and Market streets, Anacostia.....	1	6
Northeast corner Washington and Market streets, Anacostia.....	1	6
Southwest corner Washington and Market streets, Anacostia.....	1	6
Northeast corner Seventh and L streets NE.....	1	6
Southwest corner Seventh and L streets NE.....	1	6
Southeast corner Seventh and Florida avenue NE.....	1	6
Center Eleventh, south side East Capitol street SE.....	1	6
Center Pennsylvania avenue, between Railroad avenue and Davidson street, Twining City.....	1	6
Northwest corner First and R streets NW.....	2	6

*Bends connected to water mains—Continued.*

Location.	No.	Size.
		<i>Inches.</i>
Center Thirty-second and U streets NW	1	6
Northwest corner Sixth and N streets SW	1	6
Southeast corner Water and M streets SW	1	6
West side Water, between M and N streets SW	2	6
Northeast corner Water and M streets SW	1	6
Northeast corner Eleventh and A streets NE	1	6
Northwest corner Twelfth and A streets NE	1	6
Northwest corner New Hampshire avenue and S street NW	1	6
Northwest corner Portner and V streets NW	1	6
Southwest corner Portner and V streets NW	1	6
Center Pomeroy, west side Seventh street NW	1	6
West side Seventh, between Florida avenue and Pomeroy street NW	1	6
Center Sixteenth and Howard streets NW	1	6
Center Howard, between Fourteenth and Center streets	1	6
Center Fourteenth and Howard streets NW	1	6
Northwest corner Eleventh and Q streets NW	1	6
Northeast corner Twelfth and Q streets NW	1	6
Southeast corner Twelfth and Q streets NW	1	6
Southwest corner Eleventh and Q streets NW	1	6
Northeast corner Second and K streets NE	1	6
Southeast corner Second and K streets NE	1	6
Southwest corner Third and K streets NE	1	6
Northwest corner Third and K streets NE	1	6
Northwest corner Ninth and G streets NE	1	6
Northeast corner Eighth and G streets NE	1	6
Southeast corner Eighth and G streets NE	1	6
Southwest corner Ninth and G streets NE	1	6
South side Massachusetts avenue, between First and Second streets NE	1	6
Northeast corner Twenty-second street and Florida avenue NW	1	6
Northwest corner Twenty-second street and Massachusetts avenue NW	1	6
Southwest corner Twenty-second and R streets NW	1	6
North side S center Tenth street NW	1	6
West side Ninth, center D street SE	1	6
South side North Carolina avenue and center Eleventh street SE	1	6
Center Thirty-second and M streets NW	1	6
Center Thirty-second, north side M NW	1	6
Center I, between Second and Third streets SE	1	6
Center Thirty-second and U streets NW	2	6
South side Florida avenue, with line Le Droit, NW	1	6
Center Florida avenue and R street NW	1	6
Southeast corner Fourteenth street on Ohio avenue NW	1	6
Northeast corner New Jersey avenue and Pierce street NW	1	6
South side Massachusetts avenue, between Second and Third streets NW	1	6
South side Massachusetts avenue, between Sixth and Seventh streets NW	1	6
Center Pennsylvania avenue, east side Railroad avenue, Twining City	1	6
Northeast corner Seventeenth street and Minnesota avenue, Twining City	1	6
Southwest corner Minnesota avenue, between Pennsylvania avenue and Naylor road, Twining City	1	6
Southeast corner Minnesota avenue and T street, Twining City	1	6
Northeast corner New Hampshire avenue and S street NW	1	6
Center Third, south side New York avenue NW	1	6
South side Circle, center Minnesota avenue, Twining City	1	12
West side circle center Pennsylvania avenue, Twining City	1	12
East side Pennsylvania avenue and Bridge, Twining City	2	12
West side Pennsylvania avenue and Bridge, Twining City	2	12
Center Thirty-second, between T and U streets NW	1	12
Center Pennsylvania and Kentucky avenues SE	1	16
Center Kentucky avenue and A street SE	2	20
Center A, east side Eleventh street SE	1	20
Center Eleventh and East Capitol streets SE	1	20
Total	174	

*Bends set at expense of applicants.*

Center Fifth, south side F street NW	1	3
Center Pennsylvania avenue and Second street SE	4	4
Southwest corner Fourteenth and K streets NW	2	4
South side Pennsylvania avenue, center Fifteenth street NW	4	4
Center Fourteenth street and New York avenue NW	2	4
Southeast corner Fourteenth street and New York avenue NW	1	4
Center Fourteenth street and Pennsylvania avenue NW	2	4
South side Pennsylvania avenue, center Seventh street NW	2	4
North side B, center First street SE	1	6
South side B, between First and Second streets SE	1	6
Center Second street and Pennsylvania avenue SE	1	6

*Bends set at expense of applicants—Continued.*

Location.	No.	Size.
		<i>Feet.</i>
South side Pennsylvania avenue, center Third street SE.....	1	6
South side Pennsylvania avenue, center Fourth street SE.....	1	6
Center Seventh street and Pennsylvania avenue SE.....	5	6
Center Sixth street and Pennsylvania avenue SE.....	5	6
Center Fourteenth and D streets NW.....	3	6
West side Eighth, center G street SE.....	2	6
East side Eighth, center G street SE.....	2	6
West side Eighth, center I street SE.....	2	6
East side Eighth, center I street SE.....	2	6
East side Eighth, center K street SE.....	2	6
North side M, center Eighth street SE.....	2	6
West side Eighth, center L street SE.....	2	6
East side Eighth, center L street SE.....	2	6
Center Fourteenth and V streets NW.....	4	6
East side Fourteenth, center U street NW.....	1	6
Southeast corner Fourteenth and R streets NW.....	1	6
Southwest corner Fourteenth and R streets NW.....	1	6
Center Fourteenth street and Rhode Island avenue NW.....	4	6
Center Fourteenth and N streets NW.....	2	6
Northeast corner Fourteenth and K streets NW.....	1	6
West side Fourteenth, center L street NW.....	2	6
East side Fourteenth, center L street NW.....	2	6
Center L and Fourteenth streets NW.....	2	6
Southwest corner Fourteenth and L streets NW.....	1	6
Northwest corner Fourteenth and K streets NW.....	1	6
Southeast corner Fourteenth and L streets NW.....	1	6
South side K, center Fourteenth street NW.....	1	6
Southwest corner Fourteenth and K streets NW.....	1	6
South side Fourteenth, between S and P streets NW.....	2	6
West side Circle, center M street and Massachusetts avenue NW.....	8	6
East side Circle, center M street and Massachusetts avenue NW.....	8	6
Northwest corner Fourteenth street and Circle NW.....	1	6
Northeast corner Fourteenth street and Circle NW.....	1	6
Southeast corner Fourteenth street and Circle NW.....	1	6
Southwest corner Fourteenth street and Circle NW.....	1	6
West side Fourteenth, center I street NW.....	4	6
Northeast corner Fourteenth and I streets NW.....	1	6
West side Fourteenth, between H and I streets NW.....	2	6
Center T, west side Fourteenth street NW.....	1	6
Center Fourteenth and S streets NW.....	2	6
West side Fourteenth, center R street NW.....	1	6
East side Fourteenth and R streets NW.....	1	6
Center Corcoran, west side Fourteenth street NW.....	1	6
Center Corcoran, east side Fourteenth street NW.....	1	6
Fourteenth, between Circle and N street NW.....	1	6
Center Fourteenth, north side K street NW.....	1	6
West side Fourteenth, center H street NW.....	1	6
West side Fourteenth, center Pierce street NW.....	1	6
Center Vermont avenue and Fourteenth street NW.....	2	6
In Zoological Park NW.....	3	6
On Quarry road NW.....	4	6
East side Pennsylvania avenue, center New York avenue NW.....	3	6
West side Fourteenth street, north side New York avenue NW.....	2	6
Northeast corner Fifteenth street and New York avenue NW.....	1	6
Southwest corner Fourteenth street and Pennsylvania avenue NW.....	1	6
Center Nineteenth street, south side Pennsylvania avenue NW.....	1	6
Northwest corner First street and Pennsylvania avenue NW.....	1	6
East side First, south side C street NW.....	1	6
West side First, south side C street NW.....	1	6
Center First, south side C street NW.....	1	6
Northeast corner First street and Indiana avenue NW.....	1	6
Northwest corner New Jersey avenue and C street NW.....	1	6
Center Fifteenth street and Pennsylvania avenue NW.....	1	6
Center Fourteenth street and Pennsylvania avenue NW.....	3	6
Center Seventeenth, south side Pennsylvania avenue NW.....	4	6
Center Virginia avenue, east side Eighth street SE.....	1	6
Northwest corner First street and Pennsylvania avenue NW.....	1	12
Center Fourteenth street and Pennsylvania avenue NW.....	1	12
West side Fourteenth street, north side Pennsylvania avenue NW.....	1	12
Total.....	152	



## STOP VALVES.

One hundred and five valve casings have been adjusted to grade; one hundred and twenty-five repairs have been made to stop valves.

*Stop valves connected to water mains.*

Location.	No.	Size.	Way.
		In.	
South side H, between Four-and-a-half and Sixth streets SW .....	1	3	2
North side G, between Eighth and Ninth streets NE .....	1	3	2
In alley between Sixth and Seventh, and G and I streets SE .....	1	3	2
Southeast corner First and Canal streets SW .....	1	4	2
Center Eleventh, south side East Capitol street SE .....	1	4	2
South side G, between Four-and-a-half and Sixth streets SW .....	1	4	2
West side Twelfth, between S and T streets NW .....	1	4	2
East side Twenty-third, between L and M streets NW .....	1	4	2
Center Thirty-first, between M and N streets NW .....	1	4	2
Center Thirtieth and N streets NW .....	1	4	2
Center Twenty-ninth street and Dumbarton avenue NW .....	2	4	2
Northwest corner New Jersey avenue and D street NW .....	1	4	2
Center Sixth street, south side Massachusetts avenue NW .....	1	4	2
Center Messmore and Columbia streets NW .....	1	6	2
Center Quarry and Columbia streets NW .....	1	6	2
Center Adams and Columbia streets NW .....	1	6	2
Center Columbia and Champlain streets NW .....	1	6	2
Center Ontario and Adams streets NW .....	1	6	2
Center Columbia and Central streets NW .....	1	6	2
Northwest corner Eighteenth and Belmont streets NW .....	1	6	2
Northeast corner Second and E streets NE .....	1	6	2
Southeast corner Connecticut avenue and S streets NW .....	1	6	2
Southeast corner Twelfth and Iowa Circle NW .....	1	6	2
Minnesota avenue, 3,800 feet from center Harrison street, Twining City .....	1	6	2
Minnesota avenue, 4,200 feet from center Harrison street, Twining City .....	1	6	2
Center Railroad and Pennsylvania avenue, Twining City .....	1	6	2
South side A street, center Kentucky avenue SE .....	2	6	2
Center Kentucky avenue and B street SE .....	2	6	2
Center Kentucky and South Carolina avenues SE .....	2	6	2
Center Kentucky avenue and C street SE .....	2	6	2
Center Kentucky avenue and E street SE .....	2	6	2
Center Kentucky avenue and G street SE .....	2	6	2
West side Kentucky and Pennsylvania avenues SE .....	1	6	2
Center Harrison street and Minnesota avenue, Anacostia .....	2	6	2
Minnesota avenue, 800 feet from center Harrison street, Anacostia .....	1	6	2
Minnesota avenue, 500 feet from center Harrison street, Anacostia .....	1	6	2
Minnesota avenue, 1,200 feet from center Harrison street, Anacostia .....	1	6	2
Minnesota avenue, 2,000 feet from center Harrison street, Anacostia .....	1	6	2
Minnesota avenue, 2,800 feet from center Harrison street, Anacostia .....	1	6	2
Center Bladensburg road, between H and Levis NE .....	1	6	2
Pennsylvania avenue, 75 feet east Railroad avenue, Twining City .....	1	6	2
Pennsylvania avenue, between Railroad avenue and Davidson street, Twining City .....	1	6	2
East side Thirty-fifth, center U street NW .....	1	6	2
West side Water, center M street SW .....	1	6	2
West side Water, center N street SW .....	1	6	2
Southeast corner Water and M streets SW .....	1	6	2
Northwest corner Sixth and N streets SW .....	1	6	2
West side Seventh, center Pomeroy street NW .....	1	6	2
South side Florida avenue, west side Seventh street NW .....	1	6	2
Center Madison, east side Eighteenth street NW .....	1	6	2
East side First, south side Massachusetts avenue NE .....	1	6	2
Center Madison and N streets NW .....	1	6	2
Northeast corner New Jersey avenue and L street NW .....	1	6	2
Center Sixth street, south side Massachusetts avenue NW .....	1	6	2
Center Thirty-second and U streets NW .....	4	6	2
South side Florida and Le Droit avenues NW .....	1	6	2
East side Fourteenth street, center Ohio avenue NW .....	1	6	2
South side F, between Sixth and Seventh streets NW .....	1	6	2
Southeast corner Pennsylvania avenue and reservation near Ninth street NW .....	1	6	2
Center Roanoke, east side Fourteenth streets NW .....	1	6	2
Southeast corner Fourteenth and Princeton streets NW .....	1	6	2
West side Fourteenth, center Euclid street NW .....	1	6	2
East side Fourteenth, center Clifton street NW .....	1	6	2
Center Florida avenue, between Eleventh and Twelfth streets NE .....	1	6	2
Northwest corner North Capitol street and New York avenue NW .....	1	6	2
Southeast corner Circle and R streets NW .....	1	6	2
Northwest corner Twenty-seventh and K streets NW .....	1	6	2
North side K, center Thirtieth street NW .....	1	6	2
Center University Place and Euclid street NW .....	1	6	2
North side R street, center Florida avenue NW .....	1	6	3
North side K, center Twenty-ninth street NW .....	1	6	3
Center Ontario and Columbia streets NW .....	1	6	3
Southwest corner Eighteenth and Wyoming streets NW .....	1	6	3

*Stop valves connected to water mains—Continued.*

Location.	No.	Size.	Way.
		<i>In.</i>	
Center Harrison and Pierce streets, Anacostia.....	1	6	3
Center Harrison and Fillmore streets, Anacostia.....	1	6	3
Center Harrison and Monroe streets, Anacostia.....	1	6	3
Center Monroe and Washington streets, Anacostia.....	1	6	3
Southwest corner Fifteenth and G streets NE.....	1	6	3
Southwest corner Seventeenth and T streets NW.....	1	6	3
Center Fourteenth and Sheridan streets NW.....	1	6	3
Center Fourteenth and Howard streets NW.....	1	6	8
Center Howard and Center streets NW.....	1	6	3
Center Howard and Brown streets NW.....	1	6	3
Center Sheridan and Sixteenth street extended NW.....	1	6	3
West side Second street, south side Massachusetts avenue NE.....	1	6	3
Center North Capitol street and New York avenue.....	1	6	3
Center First and M streets SE.....	1	6	4
Center One-half and M streets SE.....	1	6	4
Center Fifteenth and Kenesaw streets NW.....	1	6	4
Center Thirteenth and Clifton streets NW.....	1	6	4
Center Second and E streets SE.....	1	6	4
Center Twelfth and K streets NE.....	1	6	4
Center Eleventh and K streets NE.....	1	6	4
Center Second and I streets SW.....	1	6	4
Center Eighteenth and Columbia streets NW.....	1	6	4
Center Twelfth and O streets NE.....	1	6	4
Center Pierce and Jackson streets, Anacostia.....	1	6	4
Center Pierce and Washington streets, Anacostia.....	1	6	4
Center Pierce and Jefferson streets, Anacostia.....	1	6	4
Center Jackson and Fillmore streets, Anacostia.....	1	6	4
Center Washington and Fillmore streets, Anacostia.....	1	6	4
Center Jefferson and Fillmore streets, Anacostia.....	1	6	4
Center Jefferson and Monroe streets, Anacostia.....	1	6	4
Center Bladensburg road and Levis street NE.....	1	6	4
Center Thirty-fourth and U streets NW.....	1	6	4
Center Fifteenth and V streets NW.....	1	6	4
Center Howard and Sixteenth street extended NW.....	1	6	4
Center Howard and Seventeenth street extended NW.....	1	6	4
Center Park and Seventeenth street extended NW.....	1	6	4
Center First street and New York avenue NE.....	1	6	4
Center First and S streets NW.....	1	6	4
Center Thirteenth and F streets NE.....	1	6	4
Center Twelfth and C streets SE.....	1	6	5
Center Wilson and Linden streets NW.....	1	6	5
South side North Carolina avenue, center Eleventh street SE.....	1	6	5
Center Twenty-third and N streets NW.....	1	6	5
Center Thirty-second, between T and U streets NW.....	1	10	2
Center Columbia, west side Sixteenth street extended NW.....	1	12	2
Center Pennsylvania and Minnesota avenues, Twining City.....	1	12	2
Intersection Pennsylvania and Kentucky avenues SE.....	1	12	2
Minnesota avenue, 1,400 feet from center Harrison street, Anacostia.....	1	12	2
Center Thirty-second and M streets NW.....	1	12	2
Center Kentucky avenue and D street SE.....	1	16	2
Center Eleventh and East Capitol streets SE.....	1	20	2
Total.....	135		

*Stop valves set at expense of applicants.*

Center Fourteenth, between Circle and N streets NW.....	1	3	2
West side Second, between C and D streets NE.....	1	3	2
Center Second, between C and D streets SE.....	1	3	2
Center Ninth, between K and L streets NW.....	1	3	2
West side Fourteenth, between K and L streets NW.....	1	3	2
Center Fifth, south side F street NW.....	1	3	2
West side Fourteenth, between Kenesaw avenue and Park street NW.....	1	3	2
Center G, between Sixth and Seventh streets NW.....	1	3	2
West side Eighth, between L and M streets SE.....	1	3	2
Center Fifth, between G and H streets NW.....	1	3	2
North side Pennsylvania avenue, center Second street SE.....	1	4	2
East side Eighth, between G and I streets SE.....	1	4	2
Center Fifteenth street, south side Pennsylvania avenue.....	1	4	2
South side Pennsylvania avenue, center Seventh street NW.....	1	4	2
North side P, between Twenty-fourth and Twenty-fifth streets NW.....	1	4	2
South side Pennsylvania avenue, center Sixth street SE.....	1	6	2
Center D, west side Fourteenth street NW.....	1	6	2
East side Eighth, center L street SE.....	1	6	2
West side Eighth, center M street SE.....	1	6	2
Center G, east side Eighth street SE.....	1	6	2

*Stop valves set at expense of applicants—Continued.*

Location.	No.	Size.	Way.
		<i>In.</i>	
Center I, east side Eighth street SE .....	1	6	2
Center K, east side Eighth street SE .....	1	6	2
Center Eighth and I streets SE .....	1	6	2
In Zoölogical Park .....	1	6	2
East side Fourteenth street, center U street NW .....	2	6	2
West side Fourteenth, center U street NW .....	2	6	2
West side Fourteenth, between Circle and N street NW .....	1	6	2
Center Fourteenth street and Vermont avenue NW .....	2	6	2
West side Fourteenth street, south side Vermont avenue NW .....	1	6	2
Center L and Fourteenth streets NW .....	1	6	2
South side L, west side Fourteenth street NW .....	1	6	2
South side L, east side Fourteenth street NW .....	1	6	2
West side Fourteenth, center I street NW .....	2	6	2
Center Fifteenth street, north side Pennsylvania avenue NW .....	1	6	2
Center Fourteenth street, south side New York avenue NW .....	1	6	2
South side New York avenue, east side Pennsylvania avenue NW .....	1	6	2
Southwest corner Fourteenth street and Pennsylvania avenue NW .....	1	6	2
Center D, west side Fourteenth street NW .....	1	6	2
Center Twentieth street, south side Pennsylvania avenue NW .....	2	6	2
Center Pennsylvania avenue, east side Nineteenth street NW .....	1	6	2
Southeast corner First and C streets NW .....	1	6	2
West side New Jersey avenue, north side C street NW .....	1	6	2
Northeast corner Indiana avenue and First street NW .....	1	6	2
Southeast corner First and C streets NW .....	1	6	2
Center Pennsylvania avenue, south side Fifteenth street NW .....	1	6	2
Center Seventeenth street, south side Pennsylvania avenue NW .....	1	6	2
East side South Capitol, center I street SE .....	1	6	2
South side B, center First street SE .....	1	6	3
South side Pennsylvania avenue, center Fourth street SE .....	1	6	3
South side Pennsylvania avenue, center Seventh street SE .....	1	6	3
West side Fourteenth, center Pierce street NW .....	1	6	3
West side Fourteenth, center R streets NW .....	1	6	3
East side Fourteenth, center R street NW .....	1	6	3
Center Corcoran, west side Fourteenth street NW .....	1	6	3
Center Corcoran, east side Fourteenth street NW .....	1	6	3
West side Fourteenth, center L street NW .....	1	6	3
Center B, east side First street NW .....	1	6	3
South side B, center Second street SE .....	1	6	4
South side Pennsylvania avenue, center Third street SE .....	1	6	4
Center G, west side Eighth street SE .....	1	6	4
Center I, west side Eighth street SE .....	1	6	4
Center K, west side Eighth street SE .....	1	6	4
West side Eighth, center L street SE .....	1	6	4
Center W, west side Fourteenth street NW .....	1	6	4
West side Fourteenth, center V street NW .....	1	6	4
East side Fourteenth, center S street NW .....	1	6	4
West side Fourteenth, center Q street NW .....	1	6	4
West side Fourteenth, center S street NW .....	1	6	4
Center Q, east side Fourteenth street NW .....	1	6	4
Center P, east side Fourteenth street NW .....	1	6	4
Center P, west side Fourteenth street NW .....	1	6	4
West side Fourteenth street, center Rhode Island avenue NW .....	1	6	4
East side Fourteenth street, center Rhode Island avenue NW .....	1	6	4
West side Fourteenth, center N street NW .....	1	6	4
East side Fourteenth, center N street NW .....	1	6	4
East side Fourteenth, center L street NW .....	1	6	4
West side Fourteenth, center I street NW .....	1	6	4
East side Fourteenth, center I street NW .....	1	6	4
East side Fourteenth, center H street NW .....	1	6	4
West side Fourteenth, center H street NW .....	1	6	4
Southwest corner of Fourteenth and K street NW .....	1	6	4
South side of Fourteenth, center Pierce street NW .....	1	6	4
Center E, west side Fourteenth street NW .....	1	6	4
Center Nineteenth street, south side Pennsylvania avenue NW .....	1	6	4
Center B, west side First street NW .....	1	6	4
Center Eighteenth street, south side Pennsylvania avenue NW .....	1	6	4
Center Virginia avenue, east side Eighth street SE .....	2	12	2
East side Eighth, north side I street SE .....	1	12	2
Center Fourteenth street and Pennsylvania avenue NW .....	1	12	2
Total .....	94		



*Water mains lowered.*

Location.	Size.	Length of main.
	Inches.	Feet.
U street, between Thirty-fifth and Thirty-sixth NW.....	6	475

*Service pipes lowered.*

	Length of service.
	Feet.
Thirty-sixth, between M and N streets NW.....	152
Eleventh and B streets NW.....	8
N street between Fourteenth and Fifteenth NW.....	4
Florida avenue, between Fourteenth and Fifteenth NW.....	30
Thirty-sixth and U street NW.....	30
Florida avenue, between Twelfth and Fourteenth.....	56
Thirteenth, between I and K streets NE.....	25
Elm, Harewood, and LeDroit avenue NW.....	440
Total.....	745

Two hundred and forty-six service boxes and street washers were adjusted to grade as follows:

Location.	Num- ber.
Eleventh street, between N and S NW.....	47
B street, between Eighth and Tenth SE.....	2
Clifton street, between Thirteenth and Fifteenth NW.....	6
D street, between Seventeenth and Eighteenth NW.....	1
R street, between Eighteenth and Twentieth NW.....	7
Linden street, between Florida and Maple avenues NW.....	23
Maple avenue, between Linden and Larch streets NW.....	1
T street, between Ninth and Tenth NW.....	17
O street, between Seventh and Tenth NW.....	11
Tenth street, between Pennsylvania avenue and D street SE.....	4
Florida avenue, between Fourth and Fifth NW.....	2
U street, between Fourteenth and Seventeenth NW.....	24
M street between Fourteenth and Eighteenth NW.....	8
Kenesaw avenue, between Fourteenth and Fifteenth extended NW.....	1
Louisiana avenue, between Ninth and Tenth NW.....	3
W street, between Fifteenth and Sixteenth NW.....	7
Eleventh street, between B street and North Carolina avenue SE.....	1
Eleventh, between East Capitol and B streets SE.....	18
Larch street, between Florida and Maple avenues, NW.....	4
Spruce street, between Linden and Harewood NW.....	2
Maple street, between Harewood and Larch NW.....	8
Harewood avenue, between Florida and Maple avenues NW.....	3
Thirty-sixth, between Prospect and N streets NW.....	2
N street, between Thirty-fifth and Thirty-sixth NW.....	1
Seventh street, between V and Florida avenue NW.....	19
Euclid avenue, between Fourteenth and Sixteenth.....	2
N street, between Fourteenth and Sixteenth NW.....	1
New York avenue, between Thirteenth and Fourteenth streets NW.....	1
Prospect and Potomac streets NW.....	1
C street, between Eighth and Ninth NE.....	5
I street, between Second and Third SE.....	■
D street, between Eighth and Ninth SE.....	■
F street, between Twentieth and Twenty-first NW.....	2
Bladensburg road NE.....	■
O street, between First and New Jersey avenue NW.....	7
Total.....	246

**FIRE HYDRANTS.**

One hundred and two improved fire hydrants have been erected in new locations; 8 have been moved to new curb line; 7 have been moved from one location to another, and 1,001 repairs have been made to fire hydrants.

*Erected in new location.*—Northeast corner Fourteenth and East Capitol streets, NE.; southwest corner Monroe and John streets, Anacostia; northwest corner Monroe and Buchanan streets, Anacostia; southwest corner Monroe street and Navy Place, Anacostia; north side Pierce, between First and North Capitol street NW.; northeast corner New Jersey avenue and Pierce street NW.; north side Ridge, between Fourth and Fifth streets NW.; southwest corner Lanier street and Quarry Road NW.; northwest corner Second and H streets SW.; southwest corner Eighth and D streets SW.; northeast corner Four-and-a-half and H streets SW.; northeast corner Third and H streets SW.; southwest corner Nineteenth and B streets SE.; west side Second, between F and G streets NW.; south side Massachusetts avenue, between Second and Third streets NW.; southwest corner Seventh street and Florida avenue NE.; south side Massachusetts avenue, between Sixth and Seventh streets NW.; north side Louisiana avenue, between Sixth and Seventh streets NW.; northeast corner Minnesota avenue and Naylor road, Twining City; southeast corner railroad and Pennsylvania avenue, Twining City; Minnesota avenue, between Naylor road and Seventeenth street, Twining City; Minnesota avenue, between Pennsylvania avenue and Naylor road, Twining City; northeast corner Minnesota avenue and Seventeenth street, Twining City; southeast corner Minnesota avenue and T street, Twining City; south side F, between Sixth and Seventh streets NW.; south side Indiana avenue, near Four-and-a-half street NW.; northeast corner New Hampshire avenue and S street NW.; southwest corner First and F streets NW.; north side G, between Fourth and Fifth streets NW.; northwest corner Twentieth and S streets NW.; northeast corner Twenty-first and R streets NW.; southwest corner Third street and New York avenue NW.; west side Water, between M and N streets SW.; northwest corner Twelfth and A streets NE.; west side New Hampshire avenue, near Seventeenth, between S and T streets NW.; northeast corner Fifteenth and V streets NW.; southeast corner Eighteenth and Madison streets NW.; northwest corner Howard and Center streets NW.; southeast corner Howard and Brown streets NW.; southwest corner Howard and Sixteenth streets extended NW.; northeast corner Howard and Seventeenth streets extended NW.; southwest corner Fourteenth and Sheridan streets NW.; northwest corner Fourteenth and Howard streets NW.; south side Howard, between Fourteenth and Center streets NW.; northwest corner Park and Seventeenth streets extended NW.; northwest corner Third and K streets NE.; northwest corner Ninth and G streets NE.; north side G, between Ninth and Tenth streets NW.; southwest corner Kirby and N streets NW.; northwest corner New Jersey avenue and M street SE.; northeast corner First and M streets SE.; northeast corner One-half and M streets SE.; northwest corner Fourth and M streets SE.; northwest corner Twelfth and C streets SE.; northwest corner Fourteenth and Bacon streets NW.; south side Kennesaw, between Fourteenth and Fifteenth streets NW.; southeast corner Fifteenth and Kennesaw streets NW.; southeast corner Sixteenth and Kennesaw streets NW.; southeast corner Fourteenth street and Ohio avenue NW.; northwest corner Thirteenth and Roanoke streets NW.; southeast corner Euclid street and University Place NW.; northeast corner New Hampshire avenue and Corcoran street NW.; northwest corner Seventeenth and Corcoran streets NW.; northeast corner Thirteenth and Clifton streets NW.; south side Q, between Seventeenth and Eighteenth streets NW.; northeast corner First and Heckman streets SE.; northeast corner Eleventh and K streets NE.; southeast corner Eleventh street and Florida avenue NE.; southwest corner North Capitol and O streets NW.; southeast corner Third street and Florida avenue NW.; south side Wilson, east of Linden NW.; northeast corner Twentieth street and Massachusetts avenue NW.; northwest corner First and R streets NW.; northwest corner North Capitol and R streets NW.; northwest corner Twenty-second and R streets NW.; northwest corner Second and I streets SW.; northeast corner Twenty-eighth and K streets NW.; north side New York avenue, between Fourteenth and Fifteenth streets NW.; northeast corner Columbia Road and Ontario avenue NW.; southwest corner Eighteenth and Columbia streets NW.; northwest corner Eighteenth and Wyoming streets NW.; northwest corner Fourth and G streets NE.; southeast corner Nineteenth and Wyoming streets NW.; northwest corner New Hampshire avenue and R street NW.; southeast corner Twelfth and H streets NE.; southwest corner Twelfth and O streets NE.; southwest corner Ninth and D streets NE., southwest corner Bladensburg road and I street NE.; southwest corner Bladensburg road and Mount Olivet NE.; southeast corner Sixteenth and E streets SE.; southeast corner Twentieth and P streets NW.; southwest corner Twentieth and O streets NW.; southwest corner Seventh street and Virginia avenue SW.; southwest corner Harrison and Pierce streets, Anacostia; southwest corner Harrison and Fillmore streets, Anacostia; southeast corner Harrison and Monroe streets, Anacostia; southwest corner Washington and Pierce streets, Anacostia; northwest corner Jefferson and Pierce streets, Anacostia; southwest corner Jackson and Pierce streets, Anacostia; northwest corner Jackson and Fillmore streets, Anacostia; northwest corner Jefferson and Fillmore streets, Anacostia; southwest corner Washington and Fillmore streets, Anacostia.



*Moved from one location to another.*—From southwest corner Delaware avenue and I street NE., and erected on the northwest corner Delaware avenue and I street NE.; from northwest corner Second and B streets NW., and erected on the southeast corner Second and B streets NW.; from northeast corner Twelfth and C streets NW., and erected on northwest corner Twelfth and C streets NW.; from northwest corner Eleventh and C NW., and erected on southeast corner C and Eleventh streets NW.; from New Jersey avenue, between G and H streets SE., and erected on northwest corner New Jersey avenue, in the reservation near Canal street SE.; from southwest corner Ninth and C streets NW., and erected on southeast corner Ninth street and Pennsylvania avenue NW.; from Third and N streets SW., and erected it 15 feet north on Third street SW.

*Moved to new curb line*—Nineteenth and R streets NW.; Linden and Elm streets NW.; Maple and Harewood streets NW.; Third and T streets NW.; Seventh street and Grant NW.; Seventh and Trumbull streets NW.; Fourteenth street and Florida avenue NE.; Sixteenth and Rosedale streets NE.

#### STREET HYDRANTS.

Twelve hydrants have been erected in new locations, 36 have been erected in place of old ones, 6 removed and abandoned, 1 moved to the new curb line, and 816 repairs have been made to hydrants.

*Erected in new locations.*—Eighth, between Florida avenue and Grant NW.; Thirty-seventh and N streets NW.; Fourteenth street and Maryland avenue NE.; Champlain and Columbia streets NW.; Levis street and Bladensburg road NE.; corner Fourth and Wilson streets NW.; corner Twenty-seventh and N streets NW.; Valley and Scott streets NW.; Sixth, between College and Howard streets NW.; Tenth and G streets SE.; D, between Seventeenth and Eighteenth streets NW.; Ninth and Grant NW.

*Erected in place of old ones.*—Twenty-fourth and G streets NW.; Four-and-a-half and G streets SW.; corner G street and New Hampshire avenue NW.; Eighteenth and E streets NW.; Water and Jefferson streets NW.; F, between First and Second streets, SW.; corner Second and H streets NE.; corner Delaware avenue and E street SW.; corner Thirteenth and T streets NW.; Thirty-fifth and U streets NW.; K, between Sixth and Seventh streets SE.; Potomac and O streets NW.; corner Twenty-second and G streets SW.; corner Thirteenth and B streets SW.; First and M streets NW.; Fifteenth and Erie streets NW.; corner Twenty-eighth and O streets NW.; Twelfth and B streets NE.; Eighth and L streets SE.; Seventh, between L and M streets SE.; Thirty-third and Water streets NW.; Twenty-ninth and Olive streets NW.; Six-and-a-half, between D and E streets SW.; E, between Thirteenth and Fourteenth streets SE.; Four-and-a-half street and Maryland avenue SW.; Eighth and E streets SW.; Fourteenth, between B and C streets NW.; northeast corner South Capitol and D streets SE.; southeast corner Second street and Maryland avenue SW.; Delaware avenue and H street NE.; Sixth street and Pennsylvania avenue NW.; Four-and-a-half street and Pennsylvania avenue NW.; Fourteenth and C streets SW.; Eleventh and V streets NW.; First and K streets SW.; First and D streets SE.

*Removed and abandoned.*—Seventh, between T street and Florida avenue NW.; Twentieth, between I and K streets NW.; Washington, between Fourth and Fifth streets NW.; Second and C streets SW.; K, between First and North Capitol streets NW.; Thirteenth, between W street and Florida avenue NW.

*Moved to new curb line.*—West side Second, near Canal SW.

#### FOUNTAINS.

Eleven new fountains have been erected in new locations; 3 have been changed from one location to another; 191 repairs have been made to fountains.

*Erected in new location.*—B street between Ninth and Tenth streets NW.; corner Nineteenth and E streets SE.; South Capitol and G streets SW.; Pennsylvania and Minnesota avenues SE.; Minnesota avenue, between Harrison street and Pennsylvania avenue SE.; Eleventh and Water streets SW.; Fourteenth and Welling streets NW.; Florida and New York avenues NE.; Thirty-fifth and U streets NW.; north side Harrison, near Pierce street, Anacostia; east side Eleventh, between East Capitol and Massachusetts avenue NE.

*Changed from one location to another.*—From New York avenue between Thirteenth and Fourteenth streets, and erected new one on east side Thirteenth between H street and New York avenue NW.; from northwest corner D street and New Jersey avenue to northwest corner New Jersey avenue and D street NW.; from northwest corner Third and H streets to west side Third between H street and Massachusetts avenue NW.



## PUMPS.

Twenty-nine pumps have been erected in place of old ones. Fourteen have been removed, wells filled and abandoned.

Twenty-nine wells have been cleaned; 384 repairs have been made to pumps.

*Erected in place of old ones.*—Thirty-second and T streets NW.; Sixth and C streets NE.; G, between First and North Capitol streets NW.; corner Twelfth and Q streets NW.; Tenth and K streets NW.; corner Thirty-fifth and V streets NW.; corner Twenty-first street and New York avenue NW.; corner Eleventh and M streets NW.; Thirteenth, between D and E streets SE.; Eleventh, between B and C streets SE.; Home of Incurables; corner Fourth street and Pennsylvania avenue SE.; Ninth and E streets SE.; Fifth, between P and Q streets NW.; Massachusetts avenue and Third street NE.; New York avenue, between Fourth and Fifth streets NW.; Eighth, between B and C streets SE.; Eighth and D streets SE.; Massachusetts avenue and Twelfth street NW.; I, between Eleventh and Twelfth streets SE.; Fifth and G streets SE.; Sixth street and Maryland avenue SW.; Third and C streets NE.; Thirteenth and D streets SW.; Fifth and N streets NW.; Thirteenth and C streets NE.; Birney schoolhouse; Eighth, between M and N streets NW.; Nichols avenue.

*Pumps removed, wells filled and abandoned.*—Eighth and P streets NW.; Eleventh and Q streets NW.; Harrison street, Anacostia; L, between Twelfth and Thirteenth streets NW.; Twenty-first street and Florida avenue NW.; Seventh street, between Florida avenue and Pomeroy street NW.; Tenth, between T and U streets NW.; Seventh street, between V and W streets NW.; Tenth and G streets SE.; Sixth and L streets SW.; F, between Ninth and Tenth streets SW.; Tenth, between O and P streets NW.; N, between Nineteenth and Twentieth streets NW.; Fourth and I streets NW.

## WELLS.

*Wells cleaned.*—G, between First and North Capitol streets, NW.; Eighth and P streets NW.; Eleventh and M streets NW.; Eleventh, between B and C streets SE.; Thirteenth, between D and E streets SE.; Home of Incurables; Tenth, between T and U streets NW.; Fifth, between P and Q streets NW.; Ninth and E streets SE.; corner Fourth street and Pennsylvania avenue SE.; Massachusetts avenue and Third street NE.; New York avenue, between Fourth and Fifth streets NW.; Eighth, between B and C streets SE.; Eighth and D streets SE.; Twelfth street and Massachusetts avenue NW.; Tenth and G streets SE.; Seventh, between G and H streets SW.; I, between Eleventh and Twelfth streets SE.; Fifth and G streets SE.; Sixth and L streets SW.; Sixth street and Maryland avenue SW.; Thirteenth and D streets SW.; Fourth and I streets NE.; F, between First and Second streets NW.; Fifth and N streets NW.; Eighth, between M and N streets NW.; Thirteenth and C streets NE.; Twelfth and M streets NW.

## TRAPS.

*Brick traps and iron gratings set.*—Eighth and A streets SE.; Sixth and C streets NE.; G, between North Capitol and First streets NW.; Fifth, between I and K streets NW.; Fifth and Ridge streets NW.; Sixteenth and Corcoran streets NW.; Corner Tenth and K streets NW.; First and K streets NE.; Second, between A and B streets NE.; Thirty-fourth and N streets NW.; Thirty-second and T streets NW.; Twelfth and G streets SE.; Eleventh and M streets NW.; Eleventh, between B and C streets SE.; B, between Thirteenth and Fourteenth streets NE.; Caroline, between Fifteenth and Sixteenth streets NW.; Fourth street and Pennsylvania avenue SE.; Ninth and E streets SE.; Fifth, between P and Q streets NW.; Third street and Massachusetts avenue NE.; New York avenue, between Fourth and Fifth streets NW.; Massachusetts avenue and Twelfth street NW.; Eighth and D streets SE.; Fifth and G streets SE.; Eighth, between M and N streets NW.; Fourth and I streets NE.; Second and I streets SE.; Fifth and N streets NW.; Bladensburg road NW.; Thirteenth and D streets SW.; Third and C streets NE.

## REPORT OF THE CHIEF CLERK, WATER DEPARTMENT.

ENGINEER DEPARTMENT, WATER OFFICE,  
Washington, D. C., August 1, 1892.

SIR: I have the honor to submit the following report of the operations of the revenue and inspection division of the water department for the year ending June 30, 1892:

Receipts.....	\$301,771.09
Expenditures.....	274,755.36
Inspections made.....	32,248
Leaks found.....	4,149
Leaks repaired.....	3,567
Wastes found.....	63
Warrants procured.....	70
Fines.....	\$295
Forfeits.....	136
Bonds taken in..... (cases).....	7
Cases dismissed.....	4
Bills delivered by inspectors.....	32,925
Water main tax notices delivered by inspector.....	774
Meters set during the year.....	24
Total number of meters in use to June 30, 1892.....	133

The following tables are submitted. Table No. 1, a statement of the receipts of the water department from all sources from July 1, 1878, to June 30, 1892, amounting to \$2,572,532.47.

Table No. 2, a statement of expenditures from 1879 to 1891, showing total expenditures of \$1,317,438.90.

Table No. 3, a statement of assessments and collections of water-main tax from July 1, 1878, to June 30, 1892.

Total amount assessed, \$530,155.93

Total amount collected, \$412,331.63.

Table No. 4, a statement of advances to the Treasury of the United States from 1880 to 1892, amounting to \$1,049,951.66.

Table No. 5, giving the number of houses in the District of Columbia supplied with Potomac water.

Table No. 6, giving the number of miscellaneous water takers.

Table No. 7, giving the size, kind, and total number of water meters in use to June 30, 1892.

I have the honor to be, very respectfully.

JNO. J. BEALL,  
Chief Clerk Water Department, District of Columbia.

Capt. WM. T. ROSSELL,  
Corps of Engineers, U. S. Army,  
Engineer Commissioner, District of Columbia.

## Financial statement for fiscal year 1891-'92.

Receipts from July 1, 1891, to June 30, 1892, inclusive:

Water tax:		
Current tax.....	\$60,415.38	
Advertised tax.....	4,562.67	
		\$64,978.05
Interest:		
On current tax.....	1,764.74	
On advertised tax.....	2,064.56	
		3,829.30
Water rents.....		220,892.93
Water taps for services.....		5,790.00
Permits for attachments.....		3,521.00
Water for building purposes, etc.....		2,759.81
		<u>301,771.09</u>

# 412 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Expenditures from July 1, 1891, to June 30, 1892, inclusive:

Salaries .....		*\$39,845.56
Contingent expenses .....		†2,255.47
Refunds:		
Water rents .....	\$669.84	
Water-main taxes .....	318.32	
		988.16
Extra clerical services making new water-rent books .....		588.00
For new numerical book .....		175.00
Pumping expenses and pipe distribution .....		†116,302.04
Interest and sinking fund on account of increasing water supply .....	69,991.13	
Interest and sinking fund on account of water-stock bonds .....	44,610.00	
		114,601.13
Total interest and sinking fund .....		114,601.13
Interest and sinking fund on account of increasing water supply:		
Interest .....	\$24,978.01	
Sinking fund .....	43,839.13	
		274,755.36
Total expenditures .....		274,755.36
Water tax levied during year .....		100,094.63
Water-tax arrears June 30, 1892, amount collectible .....		76,705.13
Total amount standing to the credit of water fund June 30, 1892 .....		205,120.16

\* Of this amount \$68 was paid on account of 1891.

† Of this amount \$289.64 was paid on account of 1891.

‡ Of this amount \$22,058.80 was paid on account of 1891.

§ This item of \$68,817.14 was not advanced to Treasurer United States until after close of fiscal year, and is not included in expenditures.



TABLE I.—Statement of receipts of the water department, District of Columbia, from July 1, 1878, to June 30, 1892.

Fiscal year.	Balance on hand July 1, 1878.	Mains to Government Printing Office.		Water-main tax.		Interest water-main tax.		Water rents.	Taps.	Permits and other sources.	Total receipts.
				Advertised.	Current.	Advertised.	Current.				
Balance on hand July 1, 1878.....	\$16,809.42										\$16,809.42
Received year ending June 30--											
1879.....				\$6,195.59	\$12,463.10	\$1,635.96	\$1,059.53	\$43,574.24	\$1,986.00	\$2,139.25	*69,053.67
1880.....				10,248.87	11,926.81	3,457.43	1,340.18	165,641.42	1,980.00	2,188.10	196,782.81
1881.....				3,200.38	18,368.39	1,228.94	4,040.08	109,737.83	1,851.00	1,915.72	†140,342.34
1882.....		\$2,800.00		4,017.92	3,305.50	2,086.07	392.34	101,621.10	1,815.00	1,789.71	117,827.64
1883.....		1,750.00		7,320.13	5,467.96	3,769.83	350.54	65,752.24	2,193.00	2,188.72	88,792.42
1884.....				3,563.12	8,700.53	2,385.59	122.42	119,610.20	2,373.00	2,418.79	139,173.65
1885.....				3,282.57	14,430.22	2,598.81	267.28	118,528.20	3,402.00	3,076.09	145,585.17
1886.....				3,564.81	29,631.30	2,343.44	622.49	124,896.22	5,096.00	3,459.03	169,613.29
1887.....				7,630.50	34,874.59	3,183.62	1,494.53	138,539.49	6,012.00	4,846.45	196,581.18
1888.....				8,605.53	19,939.91	5,120.55	598.86	171,892.49	4,182.00	4,809.92	215,149.26
1889.....				5,524.26	36,464.29	3,192.09	1,099.94	189,407.39	5,190.00	5,576.16	246,454.13
1890.....				9,207.61	29,257.28	5,364.04	1,557.62	197,053.34	5,313.72	6,327.95	254,081.56
1891.....				2,863.02	45,055.34	1,630.54	774.03	209,664.29	5,640.00	6,869.79	*272,497.01
1892.....				4,562.67	60,415.38	2,064.56	1,764.74	220,892.93	5,790.00	6,280.81	†301,771.00
Repayments during various fiscal years.											2,017.83
Total.....	16,809.42	4,550.00		79,786.98	330,300.60	40,061.47	15,484.58	1,976,811.38	52,823.72	53,886.49	2,572,532.47

\* This does not include \$12.50, which United States Treasurer has credited to this year's receipts, but which does not appear on books of water department.

† December 10, 1880, there was collected \$10.75 on account of water-main tax (advertised), which sum was deposited to credit of "arrears of general taxes."

‡ July 29, 1890, there was collected \$2.00 on account of water rents, which sum was deposited to the credit of general taxes August 13, 1890.

§ August 1, 1891, there was collected \$10 on account of water rents which was deposited to credit of general taxes October 26, 1891; September 2, 1891, \$1 in excess was deposited to credit of water fund.

TABLE II.—Expenditures.

Fiscal year.	Purchase of pump-house lot.	Extra clerical services making new water numerical books.	Purchase of new pumping engines and boilers.	Material and labor, pumping expenses and pipe distribution.	Salaries water department.	Contingent expenses.	Water rent refunded.	Water-main tax refunded.	Interest on water-main tax refunded.	Erection of standpipe.	Water main to Government Printing Office.	Total expenditures.
Expended from—												
July 1, 1879, to June 30, 1890.	\$2, 275. 00				\$127, 369. 01	\$20, 121. 97	\$37, 908. 61	\$655. 08	\$144. 53	\$34, 213. 26	\$8, 946. 21	\$1, 051, 273. 58
1891 on account of 1887			\$33, 041. 24	\$786, 598. 67		23. 24						28. 24
1891 on account of 1888				5. 00		16. 25						16. 25
1891 on account of 1889						62. 15						62. 15
1891 on account of 1890				3, 985. 19		428. 79						4, 413. 98
1891 on account of 1891				60, 928. 60	36, 602. 97	2, 027. 92	1, 266. 46	13. 52				100, 839. 47
1891 on account of 1892		\$462. 00		22, 058. 80	189. 00							651. 00
1892 on account of 1891		763. 00		94, 243. 24	68. 00							22, 416. 44
1892 on account of 1892					39, 777. 56	1, 965. 83	669. 84	310. 20	8. 12			137, 737. 79
	2, 275. 00	1, 225. 00	33, 041. 24	967, 819. 50	204, 006. 54	24, 935. 79	39, 844. 91	978. 80	152. 65	34, 213. 26	8, 946. 21	1, 317, 438. 90

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 415

TABLE III.—Statement of assessments and collections of water-main tax from July 1, 1878, to June 30, 1892.

Fiscal year.	Amount assessed.	Duplicate payments and over-payments.	Six per cent abatement.	Amount of tax canceled subsequent to July 1, 1878.	Amount collected July 1, 1878, to June 30, 1892.	Amount outstanding July 1, 1892, subject to exemption act of March 3, 1881.	Amount of collectible tax outstanding July 1, 1892.
From July 1, 1878, to June 30, 1891 .....	*\$430,061.30	\$989.06	$\left\{ \begin{array}{l} \dagger \$223.75 \\ 10,644.95 \end{array} \right.$	\$13,844.38	\$368,199.46	\$4,113.78	\$33,881.38
1892 .....	100,094.63	.....	$\left\{ \begin{array}{l} \dagger 142.66 \\ 2,450.34 \end{array} \right.$	10,628.37	44,132.17	.....	42,883.75
Total .....	530,155.93	989.06	13,461.70	24,472.75	412,331.63	4,113.78	76,765.13

\* Of this amount \$94,124.78 was outstanding and uncollected July 1, 1878.

† Amount of abatement allowed property owners on College Hill for amounts paid by them to R. A. Charles.

‡ Abatement allowed on tax assessed in fiscal year ending June 30, 1891, but not paid until after July 1, 1891, from which amount \$19.40 was deducted on account of refund of erroneous payment.

## RECAPITULATION.

Total amount of assessments plus duplicate payments .....	\$531,144.99
Amount of abatement at 6 per cent .....	13,237.96
Amount of abatement allowed property owners on College Hill for amounts paid by them to R. A. Charles .....	223.75
Amount of tax canceled and struck off books since July 1, 1878:	
By order of Commissioners District of Columbia, various dates .....	20,174.86
By reason of erroneous tax certificates .....	332.38
By act of Congress for relief of E. W. Patterson, approved June 13, 1885 .....	215.68
By reason of subdivision of property .....	816.17
By amount charged against District of Columbia .....	1,391.79
By amount charged against the United States .....	640.30
By amount canceled by decision of supreme court, District of Columbia .....	901.57
By amount subject to exemption, act March 3, 1881 .....	4,113.78
Amount of tax collected from July 1, 1878, to June 30, 1892 .....	412,331.63
Amount outstanding July 1, 1891, collectible tax .....	76,765.13
	531,144.99

TABLE IV.—Advances to Treasurer United States.

Fiscal year.	Interest and sinking fund, water-stock bonds.	Interest and sinking fund, increasing water supply.	Total interest and sinking fund.
Advanced to Treasurer United States, <i>ex-officio</i> commissioner of sinking fund District of Columbia:			
1880 .....	\$74,025.00	.....	\$74,025.00
1881 .....	74,123.77	.....	74,123.77
1882 .....	43,796.08	.....	43,796.08
1883 .....	44,610.00	.....	44,610.00
1884 .....	44,575.00	.....	44,575.00
1885 .....	44,610.00	\$13,686.23	58,296.23
1886 .....	31,485.00	55,047.27	86,532.27
1887 .....	57,735.00	.....	57,735.00
1888 .....	31,485.00	57,239.02	88,724.02
1889 .....	44,610.00	76,655.69	121,265.69
1890 .....	44,610.00	81,283.26	125,893.26
1891 .....	44,610.00	71,164.21	115,774.21
1892 .....	44,610.00	69,991.13	114,601.13
Total .....	624,884.85	425,066.81	1,049,951.66

## RECAPITULATION.

To amount collected, of which there has been deposited in the United States Treasury and credited to water fund the sum of .....	\$2,572,532.47
By amount expended from July 1, 1878, to June 30, 1892 .....	1,317,438.90
By amount advanced to Treasurer United States, <i>ex-officio</i> commissioner sinking fund, District of Columbia, during said period .....	1,049,951.66
By amount collected on account of water-main tax and deposited to credit of general taxes, December 20, 1880 .....	10.75
By amount collected on account of water rent July 29, 1890, and deposited to the credit of general taxes, August 13, 1890 .....	2.00
By amount collected on account of water rents and deposited to credit of general taxes during year 1891-'92* .....	9.00
Balance to credit of water fund, District of Columbia, July 1, 1892 .....	205,120.16
	2,572,532.47

\* See Table I—Receipts of water office.



TABLE 5.—Houses in the District of Columbia supplied with Potomac water.

Front feet.	Two stories.					Three stories.					Four stories.					Five stories.				Six stories.		Eight stories.		Grand Total.	
	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Northwest.	Northeast.	Southwest.	Total.	Northwest.		Northeast.
16.....	695	6,479	2,291	2,582	1,867	13,914	138	1,807	728	280	264	3,217	5	542	4	2	16	569	17	1	1	18	14	1	17,718
17.....	71	502	332	116	179	1,200	20	413	128	70	108	799	1	211	16	5	6	234	14	3	1	17	8	1	2,190
18.....	69	693	347	163	162	1,434	49	844	196	115	145	1,349	13	308	51	5	30	407	8	8	4	8	4	1	3,198
19.....	20	230	127	34	33	1,444	11	488	79	9	69	656	4	205	10	1	12	232	4	5	4	41	11	1	1,336
20.....	157	965	125	191	258	1,696	82	905	143	100	139	1,369	27	723	60	15	13	838	36	5	2	11	16	1	3,344
21.....	35	153	25	34	38	285	24	193	15	22	22	276	6	147	24	1	16	194	9	1	1	16	1	1	766
22.....	43	200	35	53	54	385	29	321	27	46	40	463	7	235	16	6	9	273	16	1	1	11	1	1	1,137
23.....	18	68	12	13	17	128	27	137	11	12	14	201	8	137	4	1	4	154	11	1	1	11	1	1	494
24.....	27	91	15	35	28	196	27	201	17	17	6	268	6	215	9	6	3	239	19	1	1	20	1	1	724
25.....	16	128	25	32	19	220	27	292	14	23	19	375	10	304	7	8	6	335	24	1	1	25	1	1	955
26.....	5	49	7	3	9	73	12	279	2	6	6	305	4	91	4	1	1	100	16	1	1	17	1	1	495
27.....	2	17	1	5	3	28	5	37	1	1	2	46	9	51	2	1	1	64	14	1	1	14	1	1	152
28.....	11	36	3	2	5	57	9	46	4	3	6	68	1	48	3	1	1	54	7	1	1	7	1	1	186
29.....	2	13	1	6	3	19	2	19	5	2	1	21	4	20	1	1	1	26	5	5	1	5	1	1	71
30.....	6	44	1	1	6	63	14	47	1	3	4	69	2	54	1	2	2	61	3	3	1	3	1	1	196
31.....	4	8	2	4	1	3	2	19	1	3	2	26	2	13	2	1	1	16	1	1	1	2	1	1	46
32.....	4	8	2	4	3	16	5	13	5	2	1	26	1	14	1	1	1	17	2	2	1	2	1	1	61
33.....	4	8	2	4	3	15	5	11	1	1	1	18	1	10	1	1	1	17	2	2	1	2	1	1	45
34.....	3	9	1	3	5	16	4	10	1	1	1	17	1	18	1	1	1	19	2	2	1	2	1	1	52
35.....	3	9	1	3	5	18	4	18	1	1	3	25	1	17	1	1	1	17	2	2	1	2	1	1	62
36.....	3	6	3	1	1	9	3	26	2	1	1	32	1	15	1	1	1	17	1	1	1	1	1	1	59
37.....	5	5	1	1	1	6	2	1	1	1	1	5	1	2	1	1	1	4	1	1	1	1	1	1	16
38.....	5	2	1	1	1	9	1	12	1	1	1	13	1	24	1	1	1	26	1	1	1	1	1	1	49
39.....	4	2	4	1	4	6	2	4	1	3	2	9	3	11	1	1	1	54	1	1	1	2	1	1	27
40.....	6	11	4	1	4	25	6	26	1	3	1	35	3	51	1	1	1	10	1	1	1	2	1	1	116
41.....	1	1	1	1	1	8	2	6	1	1	1	6	1	14	1	1	1	15	2	2	1	1	1	1	18
42.....	1	7	1	1	1	5	1	3	1	1	1	4	1	8	1	1	1	8	2	2	1	2	1	1	33
43.....	1	3	1	1	1	5	1	7	1	1	1	8	1	8	1	1	1	9	1	1	1	1	1	1	19
44.....	1	4	1	1	1	8	2	7	1	1	1	9	1	23	1	1	1	24	1	1	1	2	1	1	22
45.....	1	8	1	1	1	8	2	7	1	1	1	9	1	10	1	1	1	11	2	2	1	2	1	1	42
46.....	1	2	1	1	1	2	2	3	1	1	1	3	1	4	1	1	1	4	3	3	1	3	1	1	18
47.....	1	1	1	1	1	1	2	2	1	1	1	2	1	6	1	1	1	6	3	3	1	3	1	1	8
48.....	1	1	1	1	1	1	2	6	1	1	1	8	1	3	1	1	1	3	6	3	1	3	1	1	18
49.....	1	4	1	1	2	1	1	14	1	1	1	18	2	20	1	1	1	23	6	1	1	7	1	1	56
50.....	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	3	1	1	1	1	1	5
51.....	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	3	1	1	1	1	1	5



TABLE 5.—Houses in the District of Columbia supplied with Potomac water.

Front feet.	Two stories.					Three stories.					Four stories.					Five stories.				Six stories.		Eight stories.	Grand Total.
	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Georgetown.	Northwest.	Northeast.	Southwest.	Southeast.	Total.	Northwest.	Total.			
16.....	695	6,479	2,291	2,582	1,867	13,914	138	1,807	728	280	264	3,217	5	542	4	2	16	569	17	18	1	17,718	
17.....	71	502	332	1,116	1,179	1,200	20	413	128	70	108	789	1	211	16	5	6	234	14	17	3	2,190	
18.....	69	693	347	1,63	1,62	1,434	49	844	196	115	145	1,349	13	308	51	5	30	407	8	8	8	3,198	
19.....	20	230	127	34	33	1,444	11	488	79	9	69	656	4	205	10	1	12	232	4	4	4	1,336	
20.....	157	965	125	191	258	1,696	82	905	143	100	139	1,369	27	723	60	15	13	838	36	41	5	3,944	
21.....	35	153	25	34	38	285	24	193	15	22	22	276	6	147	24	1	16	194	9	11	2	3,766	
22.....	43	200	35	53	54	385	29	321	27	46	40	463	7	235	16	6	9	273	16	16	1	1,137	
23.....	18	68	12	13	17	128	27	137	11	12	14	201	8	137	4	1	4	154	11	11	1	494	
24.....	27	91	15	35	28	196	27	201	17	17	6	268	6	215	9	6	3	239	19	20	1	724	
25.....	16	128	25	32	19	220	27	292	14	23	19	375	10	304	7	8	6	335	24	25	1	955	
26.....	5	49	7	3	9	73	12	279	2	6	6	305	4	91	4	1	1	100	16	17	1	495	
27.....	2	17	1	5	3	28	5	37	1	1	2	46	9	51	2	1	1	64	14	14	1	152	
28.....	11	36	1	2	5	57	9	46	4	3	6	68	1	48	3	1	1	54	7	7	1	186	
29.....	2	13	1	6	3	19	2	19	1	2	2	21	4	20	1	1	1	26	5	5	1	71	
30.....	6	44	1	1	6	63	14	47	1	3	4	69	2	54	1	2	2	61	3	3	1	196	
31.....	4	2	2	4	1	3	2	19	5	2	1	26	2	13	2	1	1	16	1	1	1	46	
32.....	4	8	2	3	3	16	5	13	1	1	1	26	1	14	1	1	1	17	2	2	1	61	
33.....	4	3	2	3	3	15	5	11	1	1	1	17	1	10	1	1	1	19	1	1	1	45	
34.....	3	8	1	1	5	16	4	10	1	1	3	25	1	18	1	1	1	17	2	2	1	52	
35.....	3	9	3	1	1	9	3	26	2	1	1	32	1	15	1	1	1	17	2	2	1	62	
36.....	3	6	3	1	1	6	2	1	1	1	1	5	1	2	1	1	1	4	1	1	1	59	
37.....	5	5	1	1	1	6	2	12	1	1	2	13	1	24	1	1	1	26	1	1	1	16	
38.....	5	8	1	1	1	9	1	4	1	1	2	9	1	11	1	1	1	11	1	1	1	49	
39.....	4	2	1	1	1	6	2	4	1	3	2	35	3	51	1	1	1	54	1	2	1	116	
40.....	6	11	4	1	4	25	6	26	1	1	1	6	1	10	1	1	1	10	1	1	1	18	
41.....	1	1	1	1	1	8	2	7	1	1	1	10	1	14	1	1	1	15	2	2	1	33	
42.....	1	1	1	1	1	5	1	3	1	1	1	4	1	8	1	1	1	8	1	1	1	19	
43.....	1	3	1	1	1	5	1	7	1	1	1	8	1	23	1	1	1	9	1	1	1	22	
44.....	1	4	1	1	1	8	2	7	1	1	1	9	1	10	1	1	1	24	1	2	1	42	
45.....	1	8	1	1	1	3	2	7	1	1	1	3	1	10	1	1	1	11	2	2	1	18	
46.....	1	2	1	1	1	2	2	3	1	1	1	2	1	4	1	1	1	4	3	3	1	8	
47.....	1	1	1	1	1	1	2	6	1	1	1	8	1	6	1	1	1	6	3	3	1	18	
48.....	1	1	1	1	1	1	1	1	1	1	1	8	1	3	1	1	1	3	6	7	1	4	
49.....	1	4	1	1	2	1	1	14	1	1	1	18	2	20	1	1	1	20	6	7	1	56	
50.....	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1	1	1	23	1	1	1	5	
51.....	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1	5	





TABLE 6.—*Miscellaneous water takers.*

	George- town.	North- west.	North- east.	South- west.	South- east.	Total.
Armories .....		6				6
Barbershops .....	4	103	8	7	6	128
Bakeries .....	7	46	8	18	9	88
Banks .....	2	13				15
Barrooms .....	13	249	28	64	35	389
Boarding houses .....	2	102	34		6	144
Breweries .....		2	2	1	1	6
Bottling depots .....	1	6	2	6	1	16
Bookbinderies .....		4				4
Baths .....	1	2				3
Churches .....	12	53	5	11	8	89
Colleges .....	1	12				13
Clubrooms .....		10				10
Dining rooms .....		22				22
Florists .....		3			1	4
Foundries .....	3	7	3			13
Gas engines .....		3	1	1		5
Greenhouses .....	2	7	5		1	15
Halls .....	3	45		3	5	56
Hospitals .....		6	1	1	1	9
Laundries .....	1	34	1	4	3	43
Manufactories .....	1	15	2		1	19
Convents .....	1	1				2
Car stables .....	2	5	3	3	3	16
Market houses .....	1	4			1	6
Mills .....	5	3	1	2		11
Orphan asylums .....		5				5
Offices .....	13	769	5	6	7	800
Printing houses .....		14	1			15
Police stations .....	1	4	2	1	1	9
Photo galleries .....		25				25
Restaurants .....	6	226	3	5	9	249
Railway stations .....		2	1			3
Stables, livery .....	3	53	3	1	5	65
Stables, private .....	45	641	61	11	32	790
Schools, public .....	5	34	14	4	6	63
Schools, private .....	1	24	2	2	1	30
Shops .....	9	134	7	8	8	166
Steam boilers .....		57	1	1	1	63
Steam engines .....	15	65	6	11	5	102
Slaughter houses .....		2	3			5
Stores .....	363	1,033	21	67	94	1,578
Stone yards .....		6	5	3		14
Theatres .....		4				4
Warehouses .....	5	32	3	8	5	53
Wood and coal yards .....		16	3	1	7	27
Brick yards .....			1		3	4
Museums .....				3		3
Steamboat wharves .....				8		8
Factories .....	1				2	3
Riding schools .....		2				2
Engine-houses .....	1	4	1	1	2	9
Truck company A .....			1			1
Truck company B .....			1			1
Asylums .....	1		2			3
Baseball grounds .....		1				1
Motors .....		1				1
Dye-houses .....	1	14				15
Hotels .....	1	39				40
	533	3,970	254	262	270	5,289

These tables may be summarized as follows:

	Houses supplied with Potomac water for domestic purposes.		Miscellaneous water takers.	
	Number.	Per cent.	Number.	Per cent.
Georgetown .....	1,861	.0541	533	.1008
Northwest section .....	19,859	.5769	3,970	.7503
Northeast section .....	4,972	.1444	254	.0481
Southwest section .....	4,049	.1176	262	.0495
Southeast section .....	3,685	.1070	270	.0511
Total .....	34,426		5,289	

TABLE VII.—*Meters.*

Size.	Crown.	Thomson.	Worthington.	Total.
3-inch .....	2	.....	3	5
1-inch .....	14	6	14	34
1½-inch .....	15	3	16	34
2-inch .....	10	5	17	32
3-inch .....	7	2	13	22
4-inch .....	.....	.....	3	3
6-inch .....	8	.....	.....	3
Total .....	51	16	66	133

## REPORT OF THE SUPERINTENDENT OF LAMPS.

OFFICE OF THE ENGINEER COMMISSIONER,  
Washington, D. C., August 1, 1892.

SIR: I have the honor to submit a report of the operations of the street-lighting division for the fiscal year ending June 30, 1892, with a statement of receipts and expenditures during the same, also my estimates for this branch of the public service for the fiscal year ending June 30, 1894, as follows:

*Money statement for street lighting for the fiscal year ending June 30, 1892.*

Appropriation act March 3, 1891 .....	\$141,000.00
Street lighting account Baltimore and Potomac Railroad Company .....	\$2,660.02
Street lighting account Baltimore and Ohio Railroad Company .....	1,121.20
	<u>3,781.22</u>
Total amount available .....	144,781.22

## DISBURSEMENTS.

For street lighting:		
Washington Gaslight Company .....	105,712.32	
Georgetown Gaslight Company .....	9,438.07	
Nicalai Brothers .....	7,040.36	
	<u>122,190.75</u>	
For erection and moving of lamp-posts:		
Washington Gaslight Company .....	1,884.99	
Georgetown Gaslight Company .....	40.04	
Nicalai Brothers .....	52.85	
Pay-roll of employés .....	16.50	
	<u>1,994.38</u>	
For purchase of lamp-posts, lanterns, street designations, and other materials:		
Springmann & Son .....	4,587.53	
H. I. Gregory .....	1,483.95	
Wheeler Reflector and Light Company .....	2,380.00	
The Gleason Manufacturing Company .....	6.25	
	<u>8,457.73</u>	
For repairs of lanterns, post-arms, frames, &c.:		
W. C. Cash .....	90.00	
T. M. Quill .....	158.62	
W. E. Owen .....	76.50	
Henry Warren .....	3.00	
	<u>328.12</u>	
For painting the street lamps in the District:		
W. C. Peake, contractor for painting .....	706.74	
Hugh Reilly, painting materials .....	455.00	
George Ryneal, jr., painting materials .....	366.35	
Pay-roll, services of employés .....	317.12	
	<u>1,845.21</u>	



# 420 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Inspection of street lanterns:

G. L. Plympton, traveling expenses.....	\$14.80
Total disbursements.....	134,830.99
Outstanding liabilities.....	
Unexpended balance.....	9,950.23
	<hr/> 144,781.22

## Lamps lighted—

June 30, 1892, by Washington Gaslight Company .....	5,053
June 30, 1892, by Georgetown Gaslight Company .....	443
	<hr/> 5,496
June 30, 1891, by Washington Gaslight Company .....	4,936
June 30, 1891, by Georgetown Gaslight Company .....	430
	<hr/> 5,366

Net increase during year 1892 .....	130
During the year the following changes have been made:	
New gas lamps lighted .....	254
Discontinued gas lamps relighted.....	23

Gas lamps discontinued .....	277
	<hr/> 147
The reasons for the discontinuances were:	
Replaced by electric lights .....	135
Excavations and gradings.....	7
Wanton breakages of glass in lanterns .....	4
Replaced by United States lamps.....	1
	<hr/> 147

Of the number discontinued five were relighted, the cause of their discontinuance having been removed.

Number of oil lamps lighted June 30, 1892 .....	539
Number of oil lamps lighted June 30, 1891 .....	437
Increase during the year 1892 .....	<hr/> 102

The following changes were made during the year:

New lamps established .....	125
Lamps discontinued (replaced by gas) .....	23

Penalties were imposed for derelict service in street lighting (gas and oil service) during the year as follows:

Washington Gaslight Company.....	\$50.59
Georgetown Gaslight Company.....	58.86
Nicolai Bros. (oil lamps).....	28.90
	<hr/> 138.35

The gas and oil lamps have been lighted 3,000 hours, as provided by law. The service, with few exceptions, has been well maintained by each of the contracting companies.

An examination during the past winter of the lamps lighted along the lines of the steam railroads which traverse the streets and avenues of the District has resulted in an increase of the lighting charges against the railroads of nineteen gas lamps, making an annual saving of \$408.50 to the District.

A careful count and location of all the public lamps in the District was made during the last quarter of the year, which is now believed to be correct.

All the public lamps in the District have been thoroughly painted and the whole service renovated; about 450 old and worn-out lanterns have been replaced with new ones.

Particular attention has been given to the lighting of alleys, courts, and such streets as were more or less deficient in street lamps; many of these are densely inhabited and especially need the protection which public lighting affords; much work has also been done in preparing plats for extending this service. I would respectfully call your attention to the great need of a storehouse for lanterns, street designations, and material used in the lighting service, and recommend that a portion of the property yard inclosure be set apart for a suitable building to be erected thereon for this purpose.

Much of the repair work hitherto done by pay-roll employes could profitably be done by inspectors from this office where a suitable vehicle provided for carrying material, a stepladder, etc. My estimates for the fiscal year 1893-'94 include these items.

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 421

The superintendent of lamps is charged with the monthly examination and verification of the gas-meter measurements in the public offices, schools, police stations, etc., of the District. The maximum number of these meters during the winter season exceeds 80. The total expenditures for supplying gas for the public buildings during the year examined by me amounted to \$7,594.75. Of this sum the Washington Gaslight Company received \$6,894.55 and the Georgetown Gaslight Company \$700.20. This does not include the gas bills for the armories of the National Guard of the District.

## Estimates for the street lighting (gas and oil lamps) for the fiscal year ending June 30, 1894.

For maintenance of 6,300 gas lamps, at \$21.50 per annum each.....	\$135,400
For maintenance of 800 oil lamps, at \$15.60 per annum each .....	12,480
For erection and removal of street lamps .....	2,900
For purchase of 500 lamp-posts and lanterns .....	6,000
For purchase of 300 lanterns, to replace worn-out ones .....	1,275
For painting 7,100 street lamps and 800 unused lamp-posts .....	2,500
For repairs to street-lighting materials .....	300
<b>Total .....</b>	<b>160,855</b>

The following estimate is respectfully submitted, the reasons for which are set forth in this report:

For erection of brick storehouse at the property yard .....	\$1,200
For the purchase of one Dayton (covered) spring wagon .....	250
	<b>1,450</b>

## ELECTRIC LIGHTING.

### Money statement for electric street lighting for the fiscal year ending June 30, 1892.

Appropriation act of March 3, 1891 .....	\$59,500.00
Collections for street lighting on account of Baltimore and Potomac Railroad .....	549.00
<b>Total amount available .....</b>	<b>60,049.00</b>
Disbursements—	
For street lighting:	
United States Electric Lighting Company .....	\$58,057.80
For inspection:	
Services of employes .....	492.00
	<b>58,549.80</b>
Unexpended balance .....	<b>1,499.20</b>
	<b>60,049.00</b>

There were in service at the close of the fiscal year 324 public arc lights, being an increase during the year of 82.

The public arc lamps were lighted during the year 4,301<sup>4</sup>/<sub>50</sub> hours, or from sunset to sunrise, as provided by law.

Penalties were imposed upon the United States Electric Lighting Company during the year, for dereliction in lighting the public arc lamps aggregating 20,501 hours for one lamp, the sum withheld in the monthly settlements amounting to \$854.22.

### Estimates for electric lighting for the fiscal year ending June 30, 1894.

For the maintenance of 324 arc lamps, now in use and necessary inspection.....	\$60,930.00
For the proposed lighting, by electricity, of Massachusetts avenue NW., from Ninth street to Florida avenue; Seventeenth street NW., from H. to K streets; Connecticut avenue NW., from K street to Florida avenue; in all, 61 arc lamps.....	11,132.50
For the proposed lighting of H street, from Fifteenth street east to Seventeenth street west, 58 arc lights.....	10,585.00
<b>Total.....</b>	<b>82,647.50</b>

Very respectfully,

G. L. PLYMPTON,  
Superintendent Lamps.

Capt. W. T. ROSSELL,  
Corps of Engineers, U. S. Army,  
Engineer Commissioner, District of Columbia.

## REPORT OF SUPERINTENDENT OF SEWERS.

OFFICE OF THE ENGINEER COMMISSIONER,  
- DISTRICT OF COLUMBIA,  
Washington, D. C., November 4, 1892.

SIR: I have the honor to submit the following report of the operations of the sewer division for the year ending June 30, 1892, with estimates for funds required for construction, operation, and maintenance for the year ending June 30, 1894:

The larger works of repair during the year comprised the extension of the work of reconstruction of the Georgetown main sewer to the north side of O street, the reconstruction of the main sewer in Sixth street SE. crossing Virginia avenue, and the reconstruction of the sewer on the east side of Eleventh street NW., between B street and Pennsylvania avenue.

In addition 1,534 linear feet of pipe sewers were taken up and relaid, 169 linear feet of brick sewers were repaired, 58 linear feet of brick sewers were reconstructed, 145 manholes were repaired, 111 new iron tops were placed on manholes, 3 receiving basins were constructed, 6 receiving basins were reconstructed, 370 receiving basins were repaired, 70 new covers were placed on receiving basins, and 402 minor repairs were made to sewers. The slip or basin at the foot of Second street SE. which receives the discharge from the New Jersey avenue and the Second street sewers, had become quite shoal from washings over the walls and from sedimentation, and during warm weather the sludge, exposed at low stages of tide, was offensive. Under a contract with Thomas P. Morgan 8,772 cubic yards of mingled sand, mud, and sludge was dredged and removed from the basin, and it was placed thereby in good sanitary condition.

One hundred and seventy-two thousand and seventy-one linear feet of pipe sewers, 11,113 linear feet of brick sewers, 4,864 manholes, and 42,914 receiving basins were cleaned; 11,068 cubic yards of sand, gravel, and silt were removed from the sewers and manholes, and 12,874 cubic yards (estimated) of the same materials were removed from the receiving basins. This material is hauled to dumping grounds out of the range of habitations, and its carriage is quite expensive on account of the necessarily long haul, and the places of deposit are becoming fewer each year. The patrolling of the main sewers was continued, and it is believed that the benefit to be derived fully justifies the expenditure necessary.

Under the appropriation for replacing obstructed sewers 8,438 linear feet of pipe sewers were laid. These sewers were faulty in gradient, alignment, and because of defective joints allowing the intrusion of tree roots, and in quite a number of cases they were of insufficient size. They were all laid under contracts made with the board of public works in 1871-'74, and many of them in localities at that time with few dwellings, and therefore with little work imposed upon them, and their deficiencies were not made known until the localities had so grown, with increase in the number of house connections and duty imposed upon them, that the limit of carrying capacity was in each case reached.

The work of replacing these sewers without interfering with their use is of more than ordinary difficulty, requiring careful and intelligent management, and it must continue for several years. The amount heretofore appropriated (\$25,000) agrees with the estimated requirements for this work for the next fiscal year.

The work performed under the permit system consisted in the construction of 13,440 linear feet of pipe sewers varying in sizes between 8 and 24 inches, divided among 83 jobs, averaging in cost per job \$271.78, in length of sewer per job 162 linear feet, and in cost per linear foot \$1.68. There was also constructed in the Burleith subdivision 343.3 linear feet of egg-shape brick sewer 3.75 by 5.625, costing \$2,727 or \$7.94 per linear foot. In connection with and as part of the pipe and main sewer work noted above, 87 manholes were constructed.

Under the compulsory system there was constructed 10,091 linear feet of pipe sewers varying in sizes between 8 and 18 inches, divided among 36 jobs, averaging in cost per job \$460.96, in length of sewer per job 280 linear feet, and in cost per linear foot \$1.64. In connection with and as part of the above work, 77 manholes and 8 catch-basins were constructed.

Upon deposit of the whole cost of applicants there was constructed 2,893 linear feet of pipe sewers varying in sizes between 8 and 24 inches, divided among 29 jobs, averaging in cost per job, \$194.56; in length of sewer per job, 100 linear feet, and in cost per linear foot \$1.95. In connection with and as part of the above work, 32 manholes and 7 basins were constructed. Under permits given to the Washington and Georgetown Railway Company there was constructed, under the inspection of the sewer division, 610 linear feet of brick sewer, 4½ feet diameter, on Fourteenth street NW., between D street and Pennsylvania avenue, and 142 linear feet of brick sewer,



6.25 feet diameter, on Fifteenth street NW., crossing Pennsylvania avenue. The cost of the inspection of this work was paid by the railway company.

Under the appropriation for main and pipe sewers the main sewer in H street NE. was constructed between Boundary sewer and Eighth street, the main sewer in Fourteenth street SE. was constructed between the end of the section completed during the previous year and G street, and relieving sewers were constructed in B street NE., between Tennessee avenue and Twelfth street, and in C street NW., between First street and New Jersey avenue, and in square B, 23,171 linear feet of pipe sewers varying in sizes between 6 and 24 inches in diameter were constructed.

Under the appropriation for suburban sewers the Navy place sewer, between the Anacostia River and Nichols avenue, 891.2 linear feet of the Sherman avenue sewer, 838.05 linear feet of the Spring road sewer, and 2,949 linear feet of the Upper Rock Creek intercepting sewer were constructed. The greater portion of the Eckington main sewer between Q and S streets was constructed, and its completion between these limits under the appropriation is provided for. Seven thousand four hundred and ninety-three feet of pipe sewers, varying in sizes between 12 and 24 inches in diameter, were constructed.

The older pipe systems, while in many cases of sufficient capacity when constructed, are becoming each year less adequate to drain the areas which they were designed to serve, as pervious surfaces of streets and lots are replaced by impervious surfaces of carriageways, footways, and roof-tops, the pond areas being reduced in connection therewith, and in addition the water introduced through catch-basins constructed in connection with street improvements, which otherwise would have passed over the street surface to the lower portions of the valleys, adds to the duty imposed.

For the purpose of making efficient these systems, there is required the construction of auxiliary sewers and, in some cases, the substitution of the existing sewers by others of greater capacity.

An estimate is submitted herewith of the cost of work of this class required now and in the proximate future.

A large amount of main sewer work is required for the development of the sewer system, and as part of the scheme for the rectification of the present method of sewage disposal, estimates for which are herein presented.

The continuation of work upon the Easbys Point and F street intercepting sewer, for which contracts were authorized in the appropriation bill for the current fiscal year, will require \$135,000.

The Lower Rock Creek intercepting sewer, which is demanded, that the sewage now discharged into Rock Creek may be conveyed to deep water, will require \$251,000.

The New Jersey avenue high-level intercepting sewer is intended to avoid the flooding of the low grounds in the neighborhood of the Botanical Garden during storms of exceptional severity; estimated cost, \$532,000. The Eastern Branch intercepting sewer will divert sewage from the shoal upper portion of the Anacostia River into deep water thereof; estimated cost, \$165,000.

All of these sewers are parts of the system proposed by the board of sanitary engineers in the report of June, 1890. For the extension of the sewer on Fourteenth street SE., and the construction of the sewer on Georgia avenue, between Fourteenth and Sixteenth streets, both of which are demanded by the growth of improvements upon these and adjacent streets, the amounts of \$21,920 and \$12,100, respectively, are estimated.

The sewer on Seventh street SE., between South Carolina avenue and G street, is required to relieve an area now provided with a temporary outlet of insufficient capacity; estimated cost, \$5,420. The Kentucky avenue sewer is required to provide for the storm water reaching the circle at the intersection of Kentucky and Pennsylvania avenues, and to provide for the sewerage of the locality adjacent thereto; estimated cost, \$3,105.

The sewer proposed for Fourteenth street SW. is required because of the inadequacy of the present pipe sewer which this sewer is to take the place of; estimated cost, \$2,588.

The F street NE. sewer is required as an outlet for a sewer system now provided with a temporary pipe-sewer outlet, and also to provide an outlet for storm water; estimated cost, \$2,415.

The sewers on Twelfth street NW., R street NW., and Maine avenue, are required as outlets to sewer areas, now insufficiently served by pipe-sewer outlets. The sewer proposed for Twenty-ninth street, between Olive and Dunbarton streets, and on Olive street, between Twenty-ninth street and Rock Creek, is to take the place of an old sewer lying under dwellings and private grounds and which is so much out of repair and in such unsanitary condition that it must be replaced. Estimated cost, \$12,800. For pipe sewers and receiving basins within the limits of the cities of Washington and Georgetown, the sums of \$65,000 and \$10,000, respectively, should be appropriated.

The Rock Creek and Piney Branch intercepting sewers are demanded, that the

fouling of Rock Creek and of Piney Branch may be prevented and that sewerage facilities may be afforded to communities adjacent to these streams, as well as to the National Zoölogical Park. The estimated costs are, respectively, \$79,825 and \$6,588.

The Woodley lane sewer is to provide drainage and sewerage to the north slope of Washington Heights subdivision, to Mintwood Place and locality adjacent. Estimated cost, \$7,240. The Spring road sewer will serve the south portion of Petworth and other property in this valley. Estimated cost, \$29,755.

The Sherman avenue sewer should be completed to Pleasant street, to provide sewerage and drainage to an unsanitary locality. Estimated cost, \$5,592.

The sewer in First street west extended should be completed to W street and in W street to the valley between First and North Capitol streets, to allow the surface improvement of this locality; estimated cost, \$8,480. To complete the main sewer on Linden street will require \$2,187.

The Eckington Valley main sewer, between the Boundary sewer and Q street, should be constructed to permit the grading and regulation of the street in this locality, and also to provide a covered way for sewage from this valley; estimated cost, \$24,648.

The Bladensburg road sewer is required for the service of the closely built-up subdivision lying on the west side of this road immediately south of Mount Olivet Cemetery; estimated cost, \$13,500. The Anacostia sewer should, for sanitary reasons, be extended to deep water in the Anacostia River; estimated cost, \$11,000.

For pipe sewers and receiving basins, outside the limits of the cities of Washington and Georgetown, the sums of \$20,000 and \$4,000, respectively, should be appropriated.

A statement of employes, other than those now specially provided for, who are deemed to be necessary to an efficient and economical execution of the work for which appropriations are requested, is transmitted herewith.

The appropriation of \$5,000 for the purchase of a testing machine required for use in testing construction materials is also requested. The only available machine at present is the old Rodman machine belonging to the Naval Ordnance Department, and that machine is not of sufficient capacity to give results required, as, for example, in testing bricks it is necessary to cut the bricks into halves to bring their resistance down to the capacity of the machine. It is believed that the means used in thus reducing the specimen may affect it injuriously and the resistance to crushing, even if it is not injured, would be greater per unit in a whole than in a part of a brick.

Record has been made of rainfall and discharge from drainage areas, the Fifteenth street sewer area, the Tiber area, and the Rock Creek area being made the subject of special observation.

Valuable information is being collected and the continuance of this work will supply data upon which may be designed future drainage works with a greater degree of intelligence than otherwise possible with the information heretofore available. The sum of \$2,500 is recommended for this work for the next fiscal year.

I respectfully transmit schedules showing details of work performed and estimates of amounts required for the fiscal year 1893-'94.

*Estimates for the sewers division for the fiscal year 1893-'94*

Cleaning and repairing sewers and basins .....	\$50,000
Replacing obstructed and insufficient sewers .....	25,000
Permit sewers .....	35,000
Gauging sewers and rainfall .....	2,500
Condemnation of rights of way for sewers .....	10,000
Main and pipe sewers:	
Lower Rock Creek intercepting sewer .....	\$251,000
Easby's Point and F street intercepting sewer .....	135,000
New Jersey avenue high level intercepting sewer .....	532,000
Eastern Branch intercepting sewer .....	165,000
Fourteenth street SE. sewer .....	21,920
Georgia avenue SE., Fourteenth to Sixteenth streets .....	12,100
Seventh street SE., between South Carolina avenue and G street .....	5,240
Kentucky avenue sewer .....	3,105
Fourteenth street SW., between D street and Maryland avenue .....	2,588
F street NE., between Tennessee avenue and Fourteenth street .....	2,415
Twelfth street NW., between R and S streets .....	3,500
R street NW., between Tenth and Twelfth streets .....	3,080
Maine avenue sewer .....	9,709



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 425

## Main and pipe sewers—Continued.

Twenty-ninth street, between Olive and Dunbarton streets, and Olive street between Twenty-ninth and Rock Creek..	\$12,800
Terra-cotta pipe sewers .....	65,000
Receiving basins.....	10,000
	<hr/> \$1,234,457

## Suburban sewers:

Rock Creek intercepting sewer.....	79,825
Piney Branch intercepting sewer.....	6,588
Woodley lane sewer.....	7,240
Spring road sewer .....	29,755
Sherman avenue sewer .....	5,592
First street west extended sewer.....	8,480
Linden street sewer.....	2,187
Brentwood road and Fourth street E., between Florida ave- nue and Q street .....	24,648
Bladensburg road sewer.....	13,500
Anacostia outfall sewer .....	11,000
Terra-cotta pipe sewers.....	20,000
Receiving basins.....	4,000
	<hr/> 212,815

Sewers for areas now insufficiently served as per schedule here- with.....	117,542
---	---------

## Sewer division salaries:

Superintendent .....	2,400
General inspector .....	1,600
Assistant engineer.....	1,800
Two assistant engineers, at \$1,500 each.....	3,000
Leveler .....	1,400
Draftsman .....	1,200
Four rodmen, at \$780 each .....	3,120
Four axmen, at \$650 each .....	2,600
One clerk.....	1,200
Two clerks, at \$1,100 each .....	2,200
Two inspectors of property, at \$936 each .....	1,872
Two sewer tappers, at \$1,000 each .....	2,000
Permit clerk.....	1,400
Assistant permit clerk .....	900
	<hr/> 26,692

Estimates for employes other than those now specifically appro-  
priated for, who are deemed to be necessary to an efficient and  
economical execution of the work for which appropriations are  
requested:

One assistant engineer .....	1,500
One rodman.....	780
One axman .....	650
One observer and computer.....	1,500
One assistant observer and computer .....	780
One draftsman .....	1,200
One stenographer .....	950
One time clerk.....	800
One driver.....	480
One messenger.....	480
Twelve inspectors, at \$1,200 each.....	14,400
Five foremen, at \$1,200 each.....	6,000
Five foremen, at \$950 each.....	4,750
Office of superintendent of property:	
One clerk.....	1,100
Two inspectors, at \$1,200 each.....	2,400
Two inspectors, at \$1,000 each .....	\$2,000
One sub-inspector.....	780
Two drivers, at \$540 each .....	1,080
Two drivers, at \$480 each .....	960
One sub-inspector (in office of inspector of asphalt and cements)	625
	<hr/> 43,215

For proposed main sewers, not included in above, viz:

Lower Rock Creek intercepting sewer.....	
New Jersey avenue high level intercepting sewer.....	
Eastern Branch intercepting sewer.....	



# 426 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

For proposed main sewers not included in above—Continued.

Two assistant engineers, at \$1,500 each.....	\$3,000
Two rodmen, at \$780 each.....	1,560
Two axmen, at \$650 each.....	1,300
Eight inspectors, \$1,200 each.....	9,600
One clerk.....	1,200
One draftsman.....	1,200
	<hr/>
One machine for testing construction material.....	\$17,860
	5,000
	<hr/>
Total.....	1,780,081

Respectfully submitted.

D. E. McCOMB,  
Superintendent of Sewers.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.

## FIRST AND SECOND ANNUAL REPORTS (COMBINED) OF THE OBSERVER AND COMPUTER FOR GAUGING SEWERS AND RAINFALL.

OFFICE OF THE SUPERINTENDENT OF SEWERS,  
Washington, D. C., November —, 1892.

SIR: In accordance with your instructions I have the honor to submit my report upon the work performed under the appropriation for gauging sewers and rainfall, for the two consecutive fiscal years ending June 30, 1892.

A report was made upon the work of the first year, but informally. The present report, being the first for publication, includes what was presented last year, and may be considered as the first and second annual reports combined. This will permit the numbering of the reports of succeeding years to conform to the year of work, and avoid some possible confusion or inconvenience in the future. These successive reports will form a progressive series, interdependently related, to which the report now submitted is introductory.

### OBJECT OF THE APPROPRIATION.

The object of the annual appropriations under which the work has been and is now being carried on is, primarily, to provide the means for an investigation which shall ascertain the relations between rainfall and sewer flow, under all the varied conditions which accompany the extension of the sewer system of our city and its suburbs, that the great outlay thus occasioned may be made with a full knowledge of all the conditions—the *facts*—which should govern such outlay.

### NECESSITY FOR SUCH AN INVESTIGATION.

The necessity for such an investigation has always been recognized, and has repeatedly been urged by those officially responsible for the economical expenditure of the large sums which are entailed by any system of sewer construction, yet engineers and municipalities are still without that knowledge which would enable them to adapt their work to definite conditions, but are obliged to proceed upon arbitrary assumptions, based upon personal judgment and upon usage borrowed from other places, and due to unknown, ill-considered, and disconnected conditions. The realities necessary to serve as guides to an intelligent adaptation to particular conditions are wanting.

The expense of the sewer system of this city, up to the present time, is about \$7,000,000, and the yearly tax for maintenance and extension amounts to some \$300,000, to which must be added the interest upon the permanent outlay. Whatever of experience and of sound judgment may have been exercised in the expenditure of these large sums, their measures are unknown, as there are no standards of fact with which they can be compared. It is, however, scarcely possible but that considerable gain, either in economy or in satisfactory results, would have been effected could their expenditures have been made with a definite knowledge of all conditions.

The problems to be solved are, in their results, essentially financial ones—to determine the economical limit, especially the *scale* of construction which will give ample provision for those heavy rains which may be expected to occur at intervals during any year, yet which will not be on such a large scale that the excess of first cost, maintenance, and interest will exceed the damage and loss of a rarely occurring overflow.

Under the present deficiency of accurate knowledge probably no better method can be adopted than that which the Superintendent of Sewers has introduced into use in his Division, which fixes the maximum capacity of a given sewer for an assumed flow, based on an arbitrary sliding scale for rains, areas, surfaces, grades, etc., with those further instinctive modifications which experience with the work and acquaintance with the particular district to be drained will give.

It is believed that the present investigation will, in time, banish the underlying doubts which accompany the various considerations of storm-water disposal, furnish exact data, and thus permit the work to be prosecuted in the quiet assurance that what shall be adopted will be the most economical and the best under particular circumstances, and permit the modifications which successive experiences suggest to be made according to rules measurably defined and understood, and thus permit advances to be continually made with closer and closer approximations to exactness.

#### TERRITORY SELECTED.

The territory selected as offering the most favorable conditions for observations, and for those investigations necessary to the solution of the more immediately pressing and the more important general problems relating to sewer construction, is the large area in the northwest section of the city whose sewage and storm-waters drain into the New York avenue intercepting sewer, and into its extension to the south through Fifteenth street.

This district extends northward from New York avenue in part to Iowa Circle and O street, eastward to Seventh street, and at the west has an irregular boundary in the immediate proximity to Vermont avenue from Iowa Circle to McPherson Square, I street, and Connecticut avenue, and includes Lafayette Square, a portion of the grounds in front of the White House, and the northern half of the Treasury building.

The general surface characteristics of this district are indicated by the following tabular statement:

	Square feet.	Acres.	Per cent.
Building purposes.....	4, 536, 829	104. 141257	44. 723
Public parks.....	763, 619	17. 530287	7. 528
Street parkings.....	1, 101, 561	25. 288360	10. 858
Sidewalks.....	1, 191, 265	27. 347688	11. 743
Street roadways.....	2, 123, 819	48. 766245	20. 936
Public alleys (roadways).....	427, 254	9. 808340	4. 212
Total surface.....	10, 144, 347	232. 882177	100. 000

This district was selected not only because of its size and relations to its discharge sewer, but especially because, in connection with its size, it is almost wholly built over, and therefore includes all the varied conditions and relative proportions and kinds of surfaces, as well as grades and sewers, which exist in a densely built residential section, and which therefore afford the conditions which must generally be provided for. It is a typical section.

It sufficiently approximates to the conditions of *maximum* discharge, which are those of a solidly built business section, such, for example, as that included between Seventh and Fifteenth streets and Pennsylvania avenue and G street, where substitution of pavements for parkings, and the more complete occupation of the lots by buildings, add proportionally to the impermeable surfaces and correspondingly reduce the extent of permeable surfaces. Some slight increase of capacity is further required for water consumption and for sewage.

The additional discharge from a business section beyond the maximum discharge of a solidly built residential section, due to a rain which has continued long enough to saturate the permeable surfaces, fill depressions, and thus approach the conditions of impermeable surfaces, will not be so great as to prevent a close approximation to the additional capacity required for a business section.

The selected district also admits of favorable divisions into sub-districts for investigations in detail of modifications due to differences in proportions and kinds of rain surfaces (permeable, semi-permeable, and impermeable), to the effects and relations of different grades, and to differences in sizes, shapes, and kinds of sewers.

#### SURVEYS AND CALCULATIONS.

This district has been mapped with all the accuracy which the records of the several offices permit, the boundary determined upon the ground by survey, and a very



large amount of calculation performed. Several of the squares have been surveyed in detail to determine the different kinds and relative proportions of surfaces, of roofs, house projections—such as eaves, cornices, bay windows, piazzas, and steps—yards, walks, street parkings, sidewalks, streets and alleys, and public parks. These surveys will give data for preliminary calculations, and the accuracy will increase as opportunities for additional surveys occur, and in the development of the work, especially in the future treatment of the sub-districts.

#### CYLINDER GAUGES—NON-REGISTERING.

Registries of rainfall are obtained through the use of cylinder pot or ground gauges of the ordinary type and of autographic recording gauges.

In the cylinder gauges the rain falls within a funnel 8 inches in diameter, which therefore receives a rain-column 50.2656 square inches in sectional area. This flows into a measuring cylinder of exactly one-tenth of this area. Each inch of rainfall, therefore, fills the measuring cylinder to a depth of 10 inches. This measuring cylinder provides for a height of 20 inches, corresponding to an actual rainfall of 2 inches. Any excess overflows into an outer cylinder, and can be gauged by pouring back therefrom into the emptied measuring cylinder. The amount of rain is read by noting the height to which a wooden scale is wetted when thrust in. The scale is graduated to tenths of an inch, which the relative sections of the measuring cylinder and receiving funnel make to correspond to one-hundredths of an inch. These divisions can be readily subdivided. The readings of actual rainfall are thus carried to the third place of decimals.

#### LOCATION OF CYLINDER GAUGES.

There are in use four gauges of this form. One is upon the roof of the Franklin School building, at the southeast corner of Thirteenth and K streets, which is the most suitable point lying nearest to the center of the observation district.

A second gauge is upon the roof of the High-School building, near the corner of Seventh and O streets—the nearest suitable point to the northeast corner of the district, and distant 3,422.7 feet (or 0.64824 mile) from that upon the Franklin School building.

The third gauge is upon the scale house, southerly from and nearly opposite the southwest corner of the grounds of the Treasury building, and not far from the southwest corner of the observation district, distant 2,683.5 feet (or 0.50824 mile) from the one upon the Franklin School building.

A fourth gauge is upon the roof at the northeast corner of the rear addition to the District building. This lies at a considerable distance beyond the observation district, being 5,707.1 feet, (or 1.08089 miles) from that upon the Franklin school building, but is placed there for convenience of access from the office of the Superintendent of Sewers; it further serves to extend the area of cloud observation to the eastward, as the gauge of the Weather Bureau at M and Twenty-fourth streets does to the westward, the latter being distant 6,567.3 feet (or 1.24381 miles) from the cylinder gauge upon the Franklin school building. The distances thus far given are radial distance, and are all from the *cylinder* gauge upon the Franklin school building, as a center. It is important to note this, that they may not be confounded with others, little different, having the *recording* gauge as a center; also other, derivative distances, which are between parallels or meridians.

Observations are taken daily at the Franklin school building at 8 a. m. to correspond in time with those of the Weather Bureau; at the other points as soon thereafter as the time upon the route permits. The exact time of each observation is taken, that due allowance may be made if rain be falling while the observer is on his route. This allowance, when necessary, is made practicable by the records of the recording gauges. As these gauges are entirely exposed to the weather, they have been withdrawn at the expiration of the month of November, and put out again on the 1st of March. During the three winter months, therefore, these gauges have been out of use, and the records restricted to those of the protected recording gauges.

Entries for current use, from the daily issued weather maps, are also made, and after the close of each month comparisons and additions are made from the records of the Weather Bureau.

The records from these non-registering gauges are of amounts of rain falling within twenty-four hours. They are valuable, yet inadequate to the solution of the problems bearing upon sewer construction, as they do not themselves in any way indicate the actual times and characteristics of rain deposit. They can be used for this purpose only as an observer is upon the spot to note the increments of fall during the periods of a storm, thus obtaining by successive steps a rough approximation to changing



conditions which can be made apparent to the eye and put into shape for use by plotting. This method is, for our purposes, too unsatisfactory in its results, even were it practicable, which it is not.

#### AUTOMATIC RECORDING RAIN GAUGES.

The only possible way of meeting the requirements is by the use of gauges which automatically record the times, amounts, and all conditions of rainfall.

An examination by the Superintendent of Sewers of the different kinds of gauges in use, resulted in the selection of that designed by Mr. Desmond Fitz Gerald, of the Boston water works, for use in his Department.

In this design the rain, which falls within a funnel-shaped receiver placed above the roof, runs downward through a pipe into the gauge, which is placed within the building. The rain is conducted into a reservoir, within which is a float from which rises a stem carrying a pencil, which thus rises as the rain collecting beneath the float raises the latter. Above this rain reservoir is a vertical recording cylinder, which is revolved once in twenty-four hours by connections with a clock. About this cylinder is wrapped a record sheet. The circumference of the cylinder, and therefore the length of the record sheet, is 24 inches. The latter is ruled vertically with lines 1 inch apart, dividing the sheet into twenty-four parts, corresponding each to one hour of time. These hour divisions are further divided by lighter lines into four other divisions corresponding to quarter hours. An applied scale can further subdivide these last into any smaller fractional parts of an hour.

The height of the cylinder and the corresponding width of record sheet is 14 inches, of which 12 inches serves for the working scale. The rain reservoir has a sectional capacity one-half that of the receiving funnel, which latter is  $14\frac{3}{4}$  inches in diameter and has therefore an area of  $173.05\frac{1}{2}$  square inches; one inch of rainfall within the funnel causes the reservoir float to rise two inches, and carries the pencil upward this distance. The gauge admits of a 12-inch rise of pencil, corresponding to 6 inches of rainfall. The record sheet is ruled, also, with horizontal lines 2 inches apart, each corresponding to 1 inch of rainfall, and between these are other lines dividing this space into ten parts, each measuring two-tenths of an inch and corresponding, therefore, to one-tenth inch of rainfall. A further subdivision can be made by an applied scale. The cylinder revolves horizontally; the pencil rises vertically; the trace thus made upon the record sheet is the resultant of the two motions. Should no rain be falling, the height of the pencil remains constant, and the line traced must be a horizontal one. The pencil rising, and the sheet at the same time turning as time passes, form a relatively compound action expressed by the penciled curve, whose rapidity of rise relative to the horizontal movement with time shows exactly the rate of rainfall at any instant. The pencil thus autographically traces every condition of rainfall, and registers exactly the time of every changing relation. The rise of pencil brings it to a new level upon the record sheet, so that by dating each change of level the sheet may serve for a continuous record until 6 inches of rain has fallen. This accumulation, however, is never permitted, as sufficient allowance must be made for a possible heavy fall when, as during the night, no observer is at hand to remove the sheet or lower the water in the reservoir, as can be done to form a new base. The number of sheets used for a month's record varies from one to three.

Through the kindness of Mr. Fitz Gerald, who permitted the use of his patterns, two of his recording rain gauges were constructed and placed—one in the office of the Franklin school building, near the center of the observation district, and the other in the office of the Superintendent of Sewers, where it is always under observation during office hours. Two were provided, that there might always be one in operation should the other fail for any reason or be in need of repairs; also, that the variations in precipitation from different parts of a cloud might be studied; and further, to aid in the interpretation of such sewer-gauge record curves as are the resultants of effects upon the whole observation district, yet which evidently are not due to the particular conditions under which the rain had fallen upon the one spot of the observation district noted, *i. e.*, the receiving funnel of the gauge in the Franklin school building.

#### AUTOMATIC RECORDING SEWER GAUGE.

The recording rain gauges give all needed data for the solution of problems relating to rainfall. Coupled with these it is equally essential to observe all the conditions of flow in the sewer into which the storm waters find their way, and these observations to be of value must be exactly synchronous with those of rainfall, that at each and the same instants throughout the twenty-four hours the conditions of rainfall and of sewer discharge will be simultaneously recorded. As with observations

of rainfall this can only be accomplished by apparatus working automatically and continuously.

The apparatus used is a Stierle automatic recording tide gauge, which continuously registers the changing heights of flow in the sewer by tracing a line upon a record sheet in substantially the same manner as the rain curves. The cylinder bearing the record sheet is smaller than the rain-recording cylinder, the time scale being one-half inch per hour and the scale of current heights 1 inch per foot. The axis of the recording cylinder is horizontal and is turned by clockwork; the pencil is actuated by a float in a direction at right angles to the rotation movement of the record sheet; the curve is therefore traced in a manner analogous to that of the recording rain gauge. Like the latter, it therefore affords a record for every instant of time.

This gauge connects with the Fifteenth street sewer (which receives all the drainage of the observation district) at a point a little to the northwest of the Albaugh Opera House, at a distance of 2,589.4 feet, (or 0.49042 mile) from the receiver of the recording rain gauge in the Franklin school building. All the recording gauges are examined daily to insure proper working condition, and to see that the several pencil points are adjusted to the same mean standard time which is furnished to the District building by the Naval Observatory.

The recording gauges were completed and put in position the latter part of April of the past year (1891), synchronous observations commencing the 27th of that month. Since that date we have, therefore, the rainfalls and the consequent effects produced in the sewer which receives the discharge from the observation district.

#### AUTOGRAPHIC RECORD SHEETS.

The several record sheets from the two recording rain gauges and the recording sewer gauge are each month inked and filed for reference. Copies of all are drawn upon the same sheet or sheets to bring them together, that their synchronous actions and relations may be made the more apparent to the eye and be the more readily compared.

The course of investigation is therefore fairly inaugurated, and the way is now opening towards a solution of those problems upon which a satisfactory system of sewer construction depends.

#### RAIN RECORDS EXISTENT.

An important part of the requisites for this investigation—that relating to rainfall, its frequency and amounts, and to some extent the rates of fall during its continuance—exists and is in possession of the Weather Bureau. Observation by the help of ordinary non-registering rain-gauges have been made for the past fifty years or more, while the recording gauges of the Smithsonian Institution and the Weather Bureau furnish complete details of rainfalls commencing with the year 1871 and continuing to the present time. There is, therefore, already existent sufficient data to practically determine for sewer use the conditions of rainfall simply. The frequency and characteristics of those heavier rains which determine the scale of construction can be ascertained; also at what intervals may be expected those storms of an extraordinary character, so severe that if more frequent they would demand a much greater scale of construction, yet so rarely occurrent that it is a less tax upon the community to suffer the damage and loss from occasional flooding than to pay the enhanced cost of an enlarged scale of construction—storms which occur perhaps not more than once in several years.

The frequency of these extraordinary falls, compared with those others which may be expected at intervals during any year, will form a basis of judgment in determining the extent to which it may be economical or wise to provide for the latter, and how much of unavoidable overflow under the former conditions it may be well to suffer to escape over the surface of the ground.

#### CHARACTER OF RAINS—RELATIONS TO SEWER FLOW.

The value of self-registered rain records is very evident when the nature of successive changes in a lengthened storm or the dependent relations of broken or successive rains are considered.

Drizzles, even heavy fogs, dampen the soil and prepare the way for quick absorption of subsequent rains. Light rains continued a sufficient time saturate all permeable surfaces, fill all minor depressions, and produce surface conditions such that a heavy rain succeeding will flow off very nearly as from an impermeable surface. These conditions are realized in cases which frequently occur—excessive precipitation in the course of general storms. A heavy rain at the start, but lessening in in-



tensity, will tax the sewer less—in some conditions much less—than one commencing moderately, charging the soil and filling depressions, and then increasing to a heavy rate.

The duration of the rain is an important element. Even a heavy fall of short duration may be so expended upon the surface and so checked in its course by surface and sewer friction, distribution of flow, bends, deflections, and abrupt turns as to give so much time for its escape through the sewer that the latter will be but lightly charged; whereas, were the rate of fall to continue until over the whole surface the waters had overcome all obstacles and acquired their full constant impetus, discharging with the maximum of flow due to the rate of fall, the main sewer might be filled to overflowing.

#### CHARACTER OF SURFACES—RELATIONS TO SEWER FLOW.

Especially does the character of the surfaces upon which the rain falls affect the conditions of sewer flow. A district sparsely built; the soil in its natural permeable condition, but partially graded; large portions draining naturally into depressions where the waters are ponded; streets, if laid out, not graded to conduct the current to sewers; if graded, unpaved and absorbent; a sewer system limited in extent, the storm waters generally making their ways by natural drainage over a rough and broken surface—these conditions are widely different from those of a built-up district, where the entire surface has been brought to proper grades, and where roofs, walks, and streets are wholly or nearly impermeable, and where almost the entire rainfall discharges toward sewers which together form a complete system.

Between these extremes exist conditions ranging in infinite combination, yet all relating themselves in some manner and degree to each sewer as it is built, and in some way determining the structural conditions of that sewer.

#### DEVELOPMENT OF CITY—RELATIONS TO SEWER CONSTRUCTION.

The considerations immediately preceding naturally suggest the intimate relations which the successive stages of development of surfaces, grades, and sewer extensions which accompany the growth of a city bear to the general problems of sewer construction. The provision for the sewer districts and for large territories involve the exercise of judgment in forecasting the character and degrees of progressive development and in settling the questions which continually arise in designing a large sewer—to what extent shall it be made to accommodate the demands of a near future, or be limited to the needs of the present leaving to the future the extra costs and inconveniences and annoyances of repeated upturnings as new sewer accommodations are successively demanded.

The development of this course of investigation will permit this question to be satisfactorily answered. The rain district which is now the subject of observation will in time furnish all requisite data for the solidly built residential section, which represents about the ultimate development before its character changes to that of the solidly built business section. Its sub-district observations will show the modifications by which adaptations can be made from the extreme demands of a wholly built-up section to one moderately occupied, while the opposite extreme of an open or sparsely built territory will be met at a more distant period by observation and experiment on a district of that character.

The time during which the recording gauges have been in use has been too short to accumulate much data of an exceptional character; but what the rains have afforded is not only of much value in itself, but is suggestive of the value of the material which time will collect. Even the small rains, which cause but a slightly perceptible registry by rise in the sewer, are especially useful in ascertaining the amounts absorbed by the permeable surfaces and held back or delayed by various surface and subterranean formations. There have been a few heavy rainfalls, none that can be considered perhaps as at all of remarkable character, yet which charged the gauge-sewer to somewhat more than one-half its capacity, and therefore have afforded valuable contributions toward the solution of the more important problems.

#### AUTOMATIC VELOCITY SEWER GAUGE.

In every instance of intense rainfall which we have had, the corresponding rise and fall within the sewer has been very abrupt, the cusp of the penciled trace in all cases being sharp. The water within the sewer commences to rise almost immediately, rises rapidly to a maximum, and drops as suddenly. There has been in these cases no sustained flow. Because of such action, direct measurements of current velocities with heavy flows have not thus far been practicable. The time has not been sufficient to reach the sewer at the critical moments, even were warnings given.



It will be necessary to contrive some automatic device which, as in the case of the other sewer gauge, will be always on duty noting the changing velocities which accompany the changing heights of sewer flow. We shall then have the actual elements of sectional area and rapidity of flow which are necessary to an accurate measurement of volume. I do not know of any formula which can be trusted to serve our purposes.

With sewer volumes thus accurately determined, together with synchronous records of rainfall, we shall be able to determine the correlations of this particular district, to comprehend their significance, and thus be in a position to apply results thus obtained to other districts similarly conditioned.

#### REPETITION OF TYPES—TIME REQUIRED.

As the art of rain causation is still undeveloped, we can not yet produce at will the particular characters of rainfall needed to determine given relations; we are now compelled to await the tardy process of natural occurrence. A considerable period of time must elapse before there can occur a requisite number of rains of sufficient intensity, duration, and variety of needed types, and sufficient in number of each type to afford the data for needed determinations. To obtain any one peculiarity there must be a number of repetitions of falls all containing that distinctive peculiarity, but in different degrees; in other respects the falls must be of a simple character. This one point ascertained becomes a factor whose value or variability or range is known, and can therefore be introduced as a known quantity into the next less simple condition to find a second characteristic. These two quantities will enable us to ascertain a third; and so on to more and more complex relations, until all the essentials have been determined within the range of practical adaptation to the ends in view.

#### VARIATIONS IN PRECIPITATIONS.

One of the noticeable features of the rain curves already obtained is the variation which marks the differences in amounts and characters of precipitation during the same time from the clouds which pass over the two recording gauges, which are 5,788.5 feet (or 1.09631 miles) apart.

In some cases the curves, when plotted upon the same sheet, almost exactly coincide, indicating that the conditions of rainfall over the two points were substantially the same. In other instances, while retaining the same characteristics in all other respects, one curve may rise above another to a considerable amount, indicating an excess of rainfall at one point over the other, often to a large amount.

In still other cases a moderate and uniform rainfall during a certain period may occur at one point, while at the other the falls during the same period may occur in series of intermittent yet heavy showers. All kinds of differences of rainfall, in amounts and characters, are indicated.

It occasionally happens that the curve of the sewer gauge, which, were there a uniform precipitation over the observation district, would bear a definite relation to the rain curve at the Franklin school building, near the center of the district, varies much from it; in some cases it is evidently produced by an entirely different rain, such as occurred at the other gauge at the district building.

There being this difference in precipitation, and but one recording gauge upon the observation district, a large number of records and comparisons will be necessary to determine those characteristics of *average* rainfall over the district which produce such curves as are recorded by the sewer gauge.

#### THE SEWER GAUGE A RAIN GAUGE.

When the conditions of rainfall upon the district which produce the various sewer curves are known, these latter curves will become a better indication of the conditions of rainfall than the curves of the recording gauges themselves. The receiver of the rain gauge is but a small spot of a large area upon which the rain is deposited—it may be with great variation of intensity—and the fall at that particular spot may widely vary from the average of the district. The sewer gauge curve on the other hand is the resultant of effects over the entire district, which district itself becomes a rain receiver of nearly 233 acres area, transmitting its receipts through a 6-foot 3-inch cylinder (the diameter of the sewer) within which it is measured, the whole forming a mammoth rain gauge, when, as has been said, the relations between its curves and the rain curves shall have been established.

#### FALL CURVES OF SEWER RECORDS.

For the present, and until a number of suitable rainfalls have been recorded, the record curves of falls or of diminishing heights within the sewers will probably prove

more useful than those portions which register the rises. The latter are due to such a variety of conditions of rainfall and of initial changes of surface conditions that a long time must elapse before a sufficient number of them can be accumulated to afford such an effective grouping of similar results as shall permit their intelligent study. But it is quite frequently the case that the heavy or excessive rainfalls abruptly cease, or slacken greatly, and there is in such cases an immediate response by a corresponding drop of curve of the sewer record as the water falls within the sewer.

However complicated may have been the conditions which caused a given height within the sewer, the conditions of fall by gravity from the given height, the rain having ceased, will in all cases be very similar. If rains do not wholly cease there are, of course, differential effects upon the falls to be accounted for, but the interpretation of the falling curves will be much more simple than those of the rising curves. The study of the reversal of these falling curves, when their laws are determined, will probably be the quickest method of ascertaining the different conditions of rainfall which cause the various discharges.

#### INCIDENTAL ADVANTAGES OF THIS INVESTIGATION—WEATHER FOR WORK.

Aside from the distinctive problems of sewer construction, other incidental advantages accrue from this investigation.

There is a possible one which may result from the plotting of those records, which will indicate the frequency of those heavier rains which determine the scale of construction, although for the purposes now in mind the records would necessarily embrace those of lesser falls. The records of rainfalls within the District extending back for a half century or more, an analysis of such records, if sufficient in number and in detail, might result in the discovery of certain periodicities or regularities of intervals of occurrence of particular characteristics which would indicate certain possibilities as to the nature of the rainfall for an ensuing year.

The general characteristics of the several months are well known to all. Should experience confirm the possibilities of recurrence of any important departures or modifications of weather for ensuing months, it would be of much assistance in laying out work for any season by giving us an inkling of the extent to which the prospective weather would favor or retard such work.

#### AUTOGRAPHIC RECORDS AS EVIDENCE.

The autographic record sheets of the recording rain gauges by themselves possess a positive value. They serve as indisputable evidence in all questions dependent upon the times, durations, and amounts of rainfall, as in claims of contractors for extensions of time, or any favors or concessions, or additional compensations because of alleged exceptionally unfavorable weather. These records show exactly the duration of such weather so far as it is dependent upon rain, the nature of the rainfalls, and therefore whether they were of such a character as to prevent or materially interfere with the working in a certain kind of soil; whether the rains were severe enough or long enough continued to drive the men from the trenches; whether the continuance of any particular work was rendered impossible by conditions exceptionally unfavorable or outside of the usual contingencies which must always be allowed for; if so, the exact number of hours necessarily lost by such weather.

They serve also as evidence in all claims against the District for any damages or losses caused by flooding. The character of the rainfall can be at once shown, and a fair inference can be drawn as to whether such damages or losses were due to some failure or mal-adjustment to conditions against which it was the duty of the District officials or employés to provide; or whether the rains, whose characters are clearly shown, could not have produced the injurious results claimed, or, if so, that ill results from such rains could only have been caused by a neglect of those reasonable precautions which every owner or occupant is bound to take.

In general, they become witnesses, unimpeachable, in any question of fact relating to times, durations, amounts, and characteristics of rainfall; at once pointing out any discrepancies of statement by prejudiced observers or interested parties, and furnishing bases of fact upon which judgment may be founded and an equitable decision rendered.

Respectfully submitted.

FRANK T. THURSTON,  
*Observer and Computer*

Capt JAMES L. LUSK,  
*Corps of Engineers, U. S. Army,*  
*Assistant Engineer Commissioner, District of Columbia.*

## REPORT OF PERMIT CLERK.

OFFICE OF THE ENGINEER COMMISSIONER,  
DISTRICT OF COLUMBIA,  
Washington, D. C., September 1, 1892.

CAPTAIN: In compliance with an order of the honorable Commissioners, dated July 11, 1892, I have the honor to submit the following statement as to the affairs of the permit clerk's office for the fiscal year ending June 30, 1892.

There was no such official designation as permit clerk prior to July 1, 1891, the so-called permit clerk being a \$1,200 clerk on the permanent roll of the Engineer Department, detailed for the work of issuing permits for all excavations in the avenues, streets, roads, alleys, and public spaces, for water, sewer, and gas connections and repairs.

Permits issued during the fiscal year 1891-'92, were for—

Water connections.....	2,465	
Water repairs.....	1,056	
Water specials.....	211	
Total water permits .....		3,732
Sewer connections .....	2,784	
Sewer repairs .....	671	
Sewer specials .....	41	
Total sewer permits.....		3,496
Gas connections and repairs .....	1,648	
Gas specials.....	224	
Total gas permits .....		1,872
Hauling across sidewalks, etc .....		231
District of Columbia employes to make excavations.....		118
Chesapeake and Potomac Telephone Company to repair conduits .....		7

Total permits issued .....

9,456

The amount of money paid for permit fees as shown by the books of the collector of taxes, District of Columbia, was for—

Water permits .....	\$3,521.00
Sewer permits .....	3,455.00
Gas permits .....	1,648.00
General permits.....	7.00
Total .....	\$8,631.00

The increase in the work of this office is shown by a comparative statement of work done during the fiscal year ending June 30, 1891:

Permits issued during year—

1891-'92 .....	9,456
1890-'91 .....	5,561

Increase .....

3,895

Amount paid the collector of taxes, as shown by the books of his office for permits during the year:

1891-'92 .....	\$8,631.00
1890-'91 .....	7,638.00

Increase .....

\$993.00

Showing an increase of 11.5 per cent. in money paid and 40.94 per cent. in permits issued, the employes remaining the same for each fiscal year.

The continued improvements made in the pavements of carriageways of the avenues, streets, alleys, roads, etc., entail upon this office an increase in the work. When such pavements are displaced by plumbers or other persons, a deposit is required to cover the cost of the necessary repairs, the registered plumbers being required to deposit \$50 dollars with the collector of taxes. The cuts made are reported by this office to the superintendent of streets, who makes the necessary repairs and charges the costs of such repairs against the deposits. All vouchers are paid by the auditor, District of Columbia, and a copy of the cost of each cut and the deposits are kept in this office. There were 118 of these accounts open at the close of business June 30, 1892.



Additional work has devolved upon this office during the past few years through the laying of underground electric light, telegraph, and telephone wires in the carriageways and sidewalks, great care having to be taken to prevent such wires from being cut or injured by plumbers and others in making excavations.

The laying of water mains and sewers outside the city limits in the suburban villages puts additional work upon the sewer tappers, and some means of transportation should be furnished them to enable them to make the inspections of the work plumbers do in connecting with the main sewers promptly, to the satisfaction of the District of Columbia and the plumbers.

As this office has business with the water, sewer, and street departments, I would respectfully recommend that it be made separate from each of them (it now being a part of the sewer department), and that all permits for excavations of any kind of work in the avenues, streets, roads, alleys, and public spaces be issued from this office, this being the only way an accurate list of excavations and cuts can be kept.

For the conduct and support of this (permit) office for the fiscal year ending June 30, 1894, I estimate and recommend the following amounts:

One permit clerk.....	\$1, 500
One assistant permit clerk .....	1, 000
Two sewer tappers, at \$1,100 .....	2, 200
Contingent expenses (including rebinding of sewer plot books, and street-car tickets for use of sewer tappers).....	500
Total.....	\$5, 200

Very respectfully,

H. M. WOODWARD,  
Permit Clerk, District of Columbia.

Capt. WILLIAM T. ROSSELL,  
Corps of Engineers, U. S. Army,  
Engineer Commissioner, District of Columbia.

## REPORT OF INSPECTOR OF GAS AND METERS.

OFFICE OF THE U. S. INSPECTOR OF GAS AND METERS,  
Washington, D. C., September 13, 1892.

GENTLEMEN: I have the honor herewith to submit the annual report of this office, showing its operation for the fiscal year ending June 30, 1892.

At its commencement will be found condensed tables giving the illuminating power and purity of the gas furnished by the gas companies during the year.

Full monthly statements will be found in Tables A and B. In the remaining tables, lettered C, D, E, and F, the monthly inspection of meters and the pressure of the gas are fully stated.

Very respectfully,

S. CALVERT FORD,  
U. S. Inspector of Gas and Meters.

Hon. COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

### ILLUMINATING POWER AND PURITY.

The illuminating power and purity of the gas supplied by the Washington Gas-light Company from June 24, 1891, to June 23, 1892, were as follows:

Average illuminating power during the year .....	candles..	18. 08
Highest illuminating power during the year.....	do.....	20. 26
Lowest illuminating power during the year .....	do.....	15. 56

On October 2, 1891, the highest candle power was found.

On October 19, 1891, the lowest candle power was found.

Average quantity of ammonia in 100 cubic feet during the year .....	grains..	1. 71
Highest quantity of ammonia in 100 cubic feet during the year.....	do.....	4. 42
Lowest quantity of ammonia in 100 cubic feet during the year.....	do.....	. 17

On August 3, 1891, the highest quantity was found.

On November 30, 1891, the lowest quantity was found.

## 436 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Average quantity of sulphur in 100 cubic feet during the year .....grains.. 8.95  
 Highest quantity of sulphur in 100 cubic feet during the year .....do.... 19.92  
 Lowest quantity of sulphur in 100 cubic feet during the year .....do.... 4.39

On September 26, 1891, the highest quantity was found.

On August 29, 1892, and June 2, 1891, the lowest quantity was found..

### DEFAULTS DURING THE YEAR.

The gas supplied by the Washington Gaslight Company was on one occasion found to be of less illuminating power than 16 candles, namely, October 19, 1891, when the illuminating power only equaled 15.56 standard candles.

### PRESSURE OF THE GAS.

The pressure of the gas supplied by the Washington Gaslight Company as registered in the office of the U. S. inspector of gas and meters, located in the Post building, corner Tenth and D streets NW., during the hours that street lamps were lighted, from July 1, 1891, to June 30, 1892, was as follows:

Average pressure .....inches.. 1.30  
 Highest pressure .....do.... 2.54  
 Lowest pressure .....do.... .75

On December 5, 1891, the highest pressure was registered.

On July 11, 1891, the lowest pressure was registered.

### SPECIFIC GRAVITY OF THE GAS.

The specific gravity of the gas supplied by the Washington Gaslight Company was as follows:

Average specific gravity ..... .657  
 Highest specific gravity ..... .684  
 Lowest specific gravity ..... .593

The illuminating power and purity of the gas supplied by the Georgetown Gaslight Company from June 24, 1891, to June 23, 1892, was as follows:

Average illuminating power during the year .....candles.. 16.55  
 Highest illuminating power during the year .....do.... 19.89  
 Lowest illuminating power during the year .....do.... 14.33

On July 13, 1891, the highest candle power was found.

On July 8, 1891, the lowest candle power was found.

Average quantity of ammonia in 100 cubic feet during the year .....grains.. 2.48  
 Highest quantity of ammonia in 100 cubic feet during the year .....do.... 9.95  
 Lowest quantity of ammonia in 100 cubic feet during the year .....do.... .43

On July 10, 1891, the highest quantity of ammonia was found.

On November 9, 1891, the lowest quantity of ammonia was found.

Average quantity of sulphur in 100 cubic feet during the year .....grains.. 16.67  
 Highest quantity of sulphur in 100 cubic feet during the year .....do.... 29.76  
 Lowest quantity of sulphur in 100 cubic feet during the year .....do.... 8.15

On March 16, 1892, the highest quantity was found.

On August 21, 1891, the lowest quantity was found.

### DEFAULTS DURING THE YEAR.

The gas supplied by the Georgetown Gaslight Company during the year was on ten occasions of less illuminating power than 16 candles.

On seventeen occasions the quantity of ammonia found exceeded the 5 grains allowed.

On fifteen occasions the quantity of sulphur found exceeded the 20 grains allowed.

### PRESSURE OF THE GAS.

The pressure of the gas supplied by the Georgetown Gaslight Company as registered in the office of the U. S. inspector of gas and meters, No. 1338 Thirty-second

street, Georgetown, during the hours that street lamps were lighted, from July 1, 1891, to June 30, 1892, was as follows:

Average pressure .....	inches..	1.65
Highest pressure .....	do....	5.30
Lowest pressure .....	do....	.20

On August 24, 1891, the highest pressure was registered.

On August 24, 1891, the lowest pressure was registered.

#### SPECIFIC GRAVITY OF THE GAS.

The specific gravity of the gas supplied by the Georgetown Gaslight Company was as follows:

Average specific gravity .....	.429
Highest specific gravity .....	.450
Lowest specific gravity .....	.408

#### INSPECTION OF METERS.

One thousand six hundred and six meters were inspected and proved by this office from June 24, 1891, to June 23, 1892.

The above number was inspected and proved for the Washington and Georgetown Gaslight companies, and for consumers of gas in Washington and Georgetown.

The results of inspection were as follows: Ninety-two registered fast, average error 3.98 per cent; 36 registered slow, average error 8.95 per cent; 1,476 registered within the limits allowed by law, namely, 2 per cent either way, and 2 did not register the gas flowing through them.

One hundred and fifty of the above-mentioned meters were inspected and proved on complaint; one hundred and thirty-four were complained of by consumers of gas. Of this number 52 registered fast; average error, 5.22 per cent; 27 registered slow; average error, 4.58 per cent, and 55 registered within the limits allowed, namely, 2 per cent either way.

Sixteen were complained of by the gas companies; 9 registered fast; average error, 3.59 per cent; 3 registered slow; average error, 19.68 per cent; 2 registered within the limits allowed, and 2 did not register the gas flowing through them.

#### FEEES RECEIVED.

The sum of \$803 was received as fees for meter inspections from June 24, 1891, to June 23, 1892, and paid to the collector of the District of Columbia, to be placed to the credit of the United States and District of Columbia in equal parts.

The gas supplied by the Washington Gaslight Company during the year ending June 23, 1892, averaged 18.08 standard candles. This is the highest average ever attained since inspection was instituted.

The above is a creditable showing, particularly so when it is taken into consideration that the gas companies in the District of Columbia are required by law to have the illuminating power of the gas that they supply determined by the Bunsen photometer, using the English Parliamentary standard argand burner, having 15 holes and a 7-inch chimney.

This burner was legislated out of use in 1876 by act of Parliament, and since that time the referees of London, who have charge of gas inspection, approved the use of Sugg's London argand burner, No. 1, having 24 holes and a 6-inch chimney, as the standard burner by which the illuminating power of ordinary gas was to be determined.

The gas furnished in Washington during the past year, if tested with the present London standard burner, would have averaged 20 standard candles.

On one occasion only during the year was the gas supplied by the Washington Gaslight Company in default, and on that occasion the loss in illuminating power was less than half a candle in a flame consuming five cubic feet per hour. The illuminating power of the gas supplied by the Georgetown Gaslight Company averaged 16.55 standard candles. This is somewhat less than the average for the past few years.

This loss in candle power may have been occasioned to some extent by the admission of air while the mains were being renewed. This work of renewing mains has been going on in various localities for some months.

Larger mains have been much needed in Georgetown, so as to furnish an ample supply of gas, and changes of this kind in the company's plant can not be well made, notwithstanding the best care and prudence be exercised, without occasioning a de-



pression in the illuminating power in the early hours of the afternoon owing, as has been stated before, to the admission of air.

When these alterations of the mains have been completed, I have no doubt that both the quality and supply of gas in Georgetown will be more satisfactory.

Sixteen hundred and six meters were inspected and proved by this office during the past year. This is an unusually large number of meters, and as the demand by the gas companies for sealed meters is steadily on the increase, I again renew the recommendations heretofore made in the annual reports of this office relative to the appointment of an assistant inspector of gas and meters and modifications in the clauses of the act regulating the inspection of meters, so that a more comprehensive inspection of meters may be made.

It is essential that a laboratory be established in the southeastern section of the city and provided with the necessary instruments for determining the candle power, purity and pressure of the gas supplied by the Washington Gaslight Company from their new works.

I respectfully recommend that the salary of the messenger in this office be increased from \$480 to \$600 per annum.

The mechanical work performed by this employé, coupled with the regular duties of a messenger and the number of hours that the messenger is required to be on duty, should entitle him to the additional compensation recommended.

*Report of the illuminating power and purity of the gas supplied by the Washington Gaslight Company from June 24, 1891, to June 23, 1892.*

Months.	*Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.		
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.
					<i>Grs.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>
July .....	25	17.70	19.31	16.30	2.27	3.74	1.02	8.66	10.71	4.94
August....	26	17.59	19.08	16.42	2.53	4.42	1.70	8.39	12.64	5.49
September.	27	18.54	19.61	17.54	2.80	4.08	1.02	8.32	10.99	4.39
October....	26	18.39	20.26	15.56	2.84	4.08	1.70	9.32	19.92	7.41
November..	26	18.09	20.24	16.57	1.89	4.08	.68	9.70	15.11	7.96
December..	25	18.24	19.71	16.84	.91	2.04	.17	9.11	10.99	6.87
January....	24	18.43	19.83	16.91	.98	1.70	.34	9.48	12.91	8.24
February..	25	18.36	19.77	17.30	1.10	1.70	.68	9.76	11.81	8.51
March.....	25	17.90	19.74	16.85	1.57	2.38	.68	9.24	16.48	7.41
April.....	27	18.16	19.79	17.27	.96	2.38	.34	8.42	9.89	5.22
May.....	25	17.83	18.97	16.23	1.08	1.36	.34	9.05	11.81	7.69
June.....	26	17.83	19.04	16.26	1.68	2.72	.68	7.97	12.91	4.39
Total..	307	217.07	.....	.....	20.61	.....	.....	107.42	.....	.....

AVERAGE FOR THE YEAR.

Illuminating power in sperm candles:

Mean of 307 observations*	18.08
Highest (October 2, 1891)	20.26
Lowest (October 19, 1891)	15.56

Quantity of ammonia in 100 cubic feet:

Mean	1.71
Highest (August 3, 1891)	4.42
Lowest (November 30, 1891)	.17

Quantity of sulphur in 100 cubic feet:

Mean	8.95
Highest (September 26, 1891)	19.92
Lowest (August 29, 1891, and June 20, 1892)	4.39

On one occasion during the year the gas supplied by the Washington Gaslight Company was found to be of less illuminating power than sixteen candles, namely, October 19, 1891, when the power only equaled 15.56 standard candles.

\* Each observation consists of twenty readings on the Bunsen photometer at intervals of one minute.

*Report of the illuminating power and purity of the gas supplied by the Georgetown Gas-light Company from June 24, 1891, to June 23, 1892.*

Months.	*Number of observations.	Illuminating power in sperm candles.			Quantity of ammonia in 100 cubic feet.			Quantity of sulphur in 100 cubic feet.		
		Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.
					<i>Gr.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>
July .....	24	16.49	19.89	14.33	6.33	9.95	4.43	13.87	15.00	12.90
August....	26	16.86	18.14	16.11	5.51	7.48	4.33*	12.06	13.57	8.15
September..	27	16.48	18.11	14.91	3.32	4.25	2.40	15.42	17.38	11.49
October....	26	16.50	17.64	16.00	1.85	2.90	1.11	15.53	18.54	13.96
November..	26	16.90	18.19	15.76	1.21	2.30	.43	17.87	22.36	14.81
December..	25	16.56	17.32	16.04	.89	1.25	.70	17.61	22.37	13.90
January....	24	16.39	17.09	15.54	1.25	2.02	.57	19.04	24.04	16.71
February..	25	16.34	17.46	15.13	1.80	3.23	.85	17.85	20.87	14.88
March.....	25	16.57	17.25	15.37	1.67	2.12	.96	16.92	29.76	12.44
April.....	27	16.62	17.28	16.00	1.58	2.55	1.07	16.42	19.04	13.74
May.....	25	16.32	16.95	15.37	1.89	3.18	1.15	8.80	21.22	15.30
June.....	26	16.57	17.59	16.04	2.46	4.97	1.28	18.66	21.15	17.29
Total..	306	198.60			29.76			200.05		

## AVERAGE FOR THE YEAR.

## Illuminating power in sperm candles:

Mean of 306 observations*	16.55
Highest (July 13, 1891)	19.89
Lowest (July 8, 1891)	14.33

## Quantity of ammonia in 100 cubic feet:

Mean	2.48
Highest (July 10, 1891)	9.95
Lowest (November 9, 1891)	.43

## Quantity of sulphur in 100 cubic feet:

Mean	16.67
Highest (March 16, 1892)	29.76
Lowest (August 21, 1891)	8.15

Remarks: On ten occasions the illuminating power was less than sixteen candles.  
On seventeen occasions the quantity of ammonia found exceeded the five grains allowed.  
On fifteen occasions the quantity of sulphur found exceeded the twenty grains allowed.

*Report of meters inspected and proved for the Washington Gaslight Company and for consumers of gas, in Washington, from June 24, 1891, to June 23, 1892.*

Month.	Meters tested.	New meters for company.						Repaired meters for company.		
		Total.	Fast.		Slow.		Cor-rect.	Slow.		Cor-rect.
			No.	P. cent.	No.	P. cent.	No.	No.	P. cent.	No.
July .....	106	103			1	3.83	102	1		1
August .....	118	115					115	1		1
September .....	144	140					140			
October .....	111	105			2	3.50	103	3		3
November .....	119	108	3	4.61			105	3		3
December .....	107	77	1	3.33	1	4.50	75	7		7
January .....	102	70					70	10		10
February .....	90	42	2	3.20			40	28	1	27
March .....	134	110	9	2.86			101	14		14
April .....	143	121	8	2.72			113	13		13
May .....	150	135	7	2.82			128	11		11
June .....	110	110					110			
	1,434	1,236	30	*3.25	4	*3.94	1,202	91	1	*3.00

\* Average per cent.

\* Each observation consists of twenty readings on the Bunsen photometer at intervals of one minute.

## 440 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Report of meters inspected and proved for the Washington Gaslight Company and for consumers of gas, etc.—Continued.*

Month.	Consumers' meters on complaint of consumers.						Consumers' meters on complaint of company.						
	Total.	Fast.		Slow.		Cor- rect.	Total.	Fast.		Slow.		Cor- rect.	Did not regis- ter.
		No.	P. cent.	No.	P. cent.			No.	P. cent.	No.	P. cent.		
July.....	2					2							
August.....	2	1	5.33			1							
September.....	2	1	4.00			1	2	1	4.37	1	22.75		
October.....	3	1	6.45			2							
November.....	8	4	3.87	2	6.50	2							
December.....	21	8	4.02	5	4.36	8	2	1	3.75	1	7.00		
January.....	17	9	5.66	4	5.48	4	5	3	3.81				2
February.....	18	8	3.79	2	3.78	8	2	2	3.68				
March.....	8	6	6.12			2	2	1	3.73			1	
April.....	9	1	2.58	3	3.66	5							
May.....	4	1	2.58	2	3.52	1							
June.....													
	94	40	*4.44	18	*4.55	36	13	8	*3.86	2	*14.87	1	2

\* Average per cent.

During the fiscal year ending June 30, 1892, this office inspected and proved for the Washington Gaslight Company, and for consumers of gas in Washington 1,434 meters; of this number 78 registered fast; average error, 3.85 per cent; 25 registered slow; average error, 6.59 per cent, and 1,329 registered within the limits allowed by law, namely, 2 per cent either way, and 2 did not register, the gas flowing through them.

*Report of meters inspected and proved for the Georgetown Gaslight Company and for consumers of gas in Georgetown, from June 24, 1892, to June 23, 1892.*

Month.	Meters tested.	New meters for company.						Re- paired meters for com- pany.	Consumers' meters on complaint of con- sumers.						Consumers' meters on complaint of com- pany.							
		Total.	Fast.		Slow.		Correct.		Total.	Correct.	Total.	Fast.		Slow.		Correct.	Total.	Fast.		Slow.		Correct.
			No.	P. ct.	No.	P. ct.						No.	P. ct.	No.	P. ct.			No.	P. ct.	No.	P. ct.	
July .....	20							18	18	1					1	1			1	24.50		
August .....	4	2					2			2				1	7.50	1						
September .....	13							10	10	3				2	3.62	1						
October .....	28	12					12	13	13	3	1	5.50				2						
November .....	25	18	1	3.00			17			6	1	5.00		1	3.87	4	1				1	
December .....	8	2					2			5	3	4.27				2	1	1	3.33			
January .....	3									3	2	4.08				1						
February .....	34	2					2	25	25	7	2	9.16		2	4.45	3						
March .....	10	3					3			7	3	8.01		2	5.33	2						
April .....	1									1						1						
May .....	1									1						1						
June .....	25	24			1	4.83	23			1				1	2.95	1						
	172	63	1	3.00*	1	4.83*	61	66	66	40	12	600*	9	4.62*	19	3	1	3.33*	1	24.50*	1	

\* Average per cent.

During the fiscal year ending June 30, 1892, this office inspected and proved for the Georgetown Gaslight Company and for consumers of gas in Georgetown 172 meters. Of this number 14 registered fast, average error 4.11 per cent; 11 registered slow, average error, 11.31 per cent; and 147 registered within the limits allowed by law, namely, 2 per cent either way.



*Report showing the pressure of the gas supplied by the Washington Gaslight Company as registered in this office, Post building, corner Tenth and D streets, from July 1, 1891, to June 30, 1892.*

Month.	Mean.	Maximum.	Minimum.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
July.....	1.13	1.51	.75
August.....	1.14	1.43	.83
September.....	1.15	1.67	.80
October.....	1.16	1.64	.80
November.....	1.33	1.98	.80
December.....	1.27	2.54	.95
January.....	1.37	1.98	.97
February.....	1.49	2.38	1.05
March.....	1.41	2.50	1.01
April.....	1.32	2.42	.95
May.....	1.40	1.90	1.10
June.....	1.45	1.93	1.16
Total.....	15.62		

Average mean pressure.....inches.. 1.30  
 Maximum pressure (December 5, 1891).....do.... 2.54  
 Minimum pressure (July 11, 1891).....do.... .75

The above record represents the actual pressure of the gas during the hours that street lamps were lighted for the fiscal year ending June 30, 1892.

*Report showing the pressure of the gas supplied by the Georgetown Gaslight Company, as registered in this office, No. 1338 Thirty-second street, Georgetown, from July 1, 1891, to June 30, 1892.*

Month.	Mean.	Maximum.	Minimum.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
July.....	1.55	2.46	1.25
August.....	1.51	5.30	.20
September.....	1.53	2.55	.89
October.....	1.83	3.89	.84
November.....	1.91	5.01	1.14
December.....	1.84	4.86	1.20
January.....	1.62	4.97	.86
February.....	1.68	4.88	.96
March.....	1.51	4.86	1.00
April.....	1.48	5.04	.87
May.....	1.50	4.04	1.03
June.....	1.84	3.84	1.21
Total.....	19.80		

Average mean pressure.....inches.. 1.65  
 Maximum pressure (August 24, 1891).....do.... 5.30  
 Minimum pressure (August 24, 1891).....do.... .20

The above record represents the actual pressure of the gas during the hours that street lamps were lighted for the fiscal year ending June 30, 1892.

## REPORT OF THE INSPECTOR OF ASPHALT AND CEMENTS.

WASHINGTON, D. C., July 1, 1892.

CAPTAIN: I have the honor to submit my sixth annual report, which includes the results of investigations and analyses made in this office during the fiscal year 1891-'92. At the same time I hand you a report upon the asphalt industry of the island of Trinidad, the result of my personal examination of the deposits in November, 1891, combined with such information as I have since been able to obtain in regard to the commercial history of the subject and its present status.

There has been examined in the laboratory, and reported upon, material indexed under 1,050 heads, including 4,078 samples. At the works over 500 samples of asphalt cements have been tested for consistency by the penetration machine, and many lots of crude and refined asphalt and of sand, stone, and limestone dust have been inspected and passed. A general record of temperatures of cements and surface mixtures, and of the quantity and quality of materials sent upon the streets, has been kept and is on file in this office.

# 442 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

This work has been accomplished with the assistance of a subinspector in the laboratory, one at the works of the Cranford and Barber Paving Companies, and one laborer.

For the year 1893-'94 I estimate that the same force will be required, and that the contingent expenses of the laboratory and office will require \$500 at least.

I desire also to call attention once more to the danger of having a laboratory located in such an inflammable building as that occupied by the government of the District of Columbia for offices. I should recommend that an appropriation be obtained for the rental of more suitable rooms and for fitting them as a laboratory.

The material examined in the laboratory may be classified as follows:

<b>Hydraulic cements:</b>		
Natural: Brands, 15; lots, 391; samples.....	3, 273	
Portland: Brands, 12; lots, 47; samples.....	285	
		3, 558
<b>Cement rocks, concretes, and mortars</b> .....		24
<b>Asphalt:</b>		
Crude Trinidad, cargoes.....	7	
Other crude bitumens.....	8	
Refined Trinidad asphalt.....	10	
Oiled Trinidad asphalt.....	6	
Trinidad collection of crude.....	64	
Asphalt oils .....	2	
Heavy petroleum oil, residuum.....	50	
Surface mixtures.....	131	
Asphalt tiles and blocks .....	2	
Coal tar for binder.....	2	
Sand, stone, limestone dust, etc .....	43	
		325
<b>Waters:</b>		
Wells.....	57	
Aqueduct.....	22	
Springs and cisterns .....	6	
Sewage.....	36	
Miscellaneous.....	4	
		125
<b>Miscellaneous work:</b>		
Sperm oils for Frankfort Arsenal .....	6	
Lubricating oils for water department.....	13	
Milks.....	6	
Miscellaneous.....	21	
		46
		4, 078

Reports of the results of the investigation of this material have been made to the proper authorities and are on file in this office.

## WATERS.

### Waters analyzed.

Locality.	Examined.	Passable.	Con-demned.	Per cent con-demned.
Northwest.....	12	9	3	25
Southwest.....	4	2	2	50
Northeast.....	6	5	1	17
Southeast.....	10	8	2	20
County.....	25	19	6	24
Total.....	57	43	14	24.6

Of the well waters examined in the last fiscal year, 24.6 per cent were condemned or very suspicious, and in all but one section there was a decidedly smaller number of bad wells found than in previous years. This is due to the fact that in the past five years the greater portion of the wells of the city have been examined and the bad ones, or those presumably so, selected first. In the county and surrounding country fewer contaminated wells have been examined in the past year. In regard

4991	1619 17th St		do	32			4987
4992	1641 Bennings Road		do	32			4918
4993	1525 Bennings Road	H. O. 600	do	34			4908
5067	Metropolis View, N. O. Dennison	H. O. 601	May 17				4824
5133	Hillsdale, Nicholas avenue	Water department.	June 7	13	4½	Stone	4673
5208	Ryan Farm	Personal	June 28	250	A rtesia		4620
NORTHWEST—SUSPICIOUS OR CONDEMNED.							
4213	35th and U streets	Water department.	1891. July 15	25	3½	Stone	4572
4349	do	do	Aug. 11	25	3½	do	4571
4439	458 K street	H. O. 577	Sept. 1				4580
5081	do	H. O. 602	1892. May 24				4210
4638	5th and Q streets	Water department.	1891. Nov. 3	19	4½	Stone	4905
4660	do	do	Nov. 17				4893
SOUTHWEST—SUSPICIOUS OR CONDEMNED.							
4839	7th street, between G and H streets	Water department.	1892. Feb. 9	24	5	Stone	4790
4848	do	do	Feb. 16				4777
4899	do	do	Mar. 11				
4917	do	H. O. 591	Mar. 16				4647
5056	do	Water department.	May 10				4639
5091	do	do	May 24				4646
5134	do	do	June 7			Stone	4637
4949	6th and L streets	do	Mar. 22	18	4½		4579
NORTHEAST—SUSPICIOUS OR CONDEMNED.							
5147	Fourth and T streets	Water department.	1892. June 13	20	4½	Stone	5164
SOUTHEAST—SUSPICIOUS OR CONDEMNED.							
4523	Eleventh street between B and C streets	Water department.	1891. Sept. 22	30	4½	Wood	5162
4581	do	do	Oct. 6				4960
4619	do	do	Oct. 20				
4813	Tenth and G streets	do	1892. Jan. 20	50	4½	Wood	4665
4825	do	do	Feb. 2				4350
4840	do	do	Feb. 9				
COUNTY—SUSPICIOUS AND CONDEMNED.							
4550	Holmead avenue, Mr. Galloway	H. O. 579	1891. Sept. 28			Box p	4961
4551	1203 Roanoke street	H. O. 580	do			Drain	
4901	Whitney Close, Mr. Gifford	H. O. 587	1892. Mar. 1			Manu	5132
4906	Tennallytown, Mr. Cowles	H. O. 588	Mar. 8			Ontho	5090
4097	2352 Sixth street	H. O. 589	do			Envir	4796
4953	Fifth and Colfax	H. O. 594	Mar. 22			Surfa	4676
Surroundings.							
SPRINGS—PASSABLE.							
4209	Palisades of Potomac	Personal.	1891. July 15	Good			4266
4677	Shepherd Road, Mr. Keene	H. O. 586	Dec. 7	do			4196
SPRINGS—SUSPICIOUS OR CONDEMNED.							
4988	1734 Bennings Road	H. O. 595	1892. Apr. 12	150 feet from cemetery.			
MISCELLANEOUS WATERS.							
4269	Fendall Building	H. O. 574	1891. July 28	(?)			4267
4352	Ward's Court	H. O. 575	Aug. 11	(?)			4434
4392	Cistern, 529 Sixth street NW	H. O. 576	Aug. 18				4524
4411	J. H. Dodge	Personal.	Aug. 25	(?)			4676
4972	Cistern, J. F. Ellis, 529 Sixth street NW	do	1892. Apr. 5				
5163	Freedom, Md	do	June 21	Barnyard			

\* A few small roots removed.



# 442 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

This work has been accomplished with the assistance of a subinspector in the laboratory, one at the works of the Cranford and Barber Paving Companies, and one laborer.

For the year 1893-'94 I estimate that the same force will be required, and that the contingent expenses of the laboratory and office will require \$500 at least.

I desire also to call attention once more to the danger of having a laboratory located in such an inflammable building as that occupied by the government of the District of Columbia for offices. I should recommend that an appropriation be obtained for the rental of more suitable rooms and for fitting them as a laboratory.

The material examined in the laboratory may be classified as follows:

## Hydraulic cements:

Natural: Brands, 15; lots, 391; samples.....	3, 273
Portland: Brands, 12; lots, 47; samples.....	285
	<hr/> 3, 558

## Cement rocks, concretes, and mortars .....

24

## Asphalt:

Crude Trinidad, cargoes.....	7
Other crude bitumens.....	8
Refined Trinidad asphalt.....	10
Oiled Trinidad asphalt.....	6
Trinidad collection of crude.....	64
Asphalt oils.....	2
Heavy petroleum oil, residuum.....	50
Surface mixtures.....	131
Asphalt tiles and blocks.....	2
Coal tar for binder.....	2
Sand, stone, limestone dust, etc.....	43
	<hr/> 325

## Waters:

Wells.....	57
Aqueduct.....	22
Springs and cisterns.....	6
Sewage.....	36
Miscellaneous.....	4
	<hr/> 125

## Miscellaneous work:

Sperm oils for Frankfort Arsenal.....	6
Lubricating oils for water department.....	13
Milks.....	6
Miscellaneous.....	21
	<hr/> 46

4, 078

Reports of the results of the investigation of this material have been made to the proper authorities and are on file in this office.

## WATERS.

### Waters analyzed.

Locality.	Examined.	Passable.	Con-demned.	Per cent con-demned.
Northwest.....	12	9	3	25
Southwest.....	4	2	2	50
Northeast.....	6	5	1	17
Southeast.....	10	8	2	20
County.....	25	19	6	24
Total.....	57	43	14	24.6

Of the well waters examined in the last fiscal year, 24.6 per cent were condemned or very suspicious, and in all but one section there was a decidedly smaller number of bad wells found than in previous years. This is due to the fact that in the past five years the greater portion of the wells of the city have been examined and the bad ones, or those presumably so, selected first. In the county and surrounding country fewer contaminated wells have been examined in the past year. In regard

NORTHEAST—PASSABLE.			1891.	Aug. 11	Driven 2	5	Stone	Sand and gravel.	Fast	Parking	Sycamore	25 feet
4350	13th and D streets, brickyard	Proprietor	Dec.	15								
4605	3d street and Massachusetts avenue	Water department.										
			1892.	Mar. 27								
4960	3d and C streets	do										
5162	2d street, between H and North Capitol streets.	Mr. Clark	June	21		4 1/2	Stone	Sand	Fast	Sidewalk	None	None
5164	13th and C streets	Water department.	do		43	4 1/2	do					None
SOUTHEAST—PASSABLE.			1891.	Oct. 6	37	4 1/2	Stone	Gravel.	Fast	Sidewalk	None	None
4579	13th street, between D and E streets	Water department.	do				do	Sand	do	do		15 feet
4637	9th and E streets	do	Nov. 3		30							
4646	do	do	Nov. 10									
4680	6th and B streets	do	Nov. 3		26	4 1/2	Oak Stone	Gravel.	Fast	Sidewalk	Maples	2 feet
4647	Pennsylvania avenue and 4th street	do	Nov. 10		23	4 1/2	do	Sand	do	do	Poplar	8 feet
4777	8th street, between B and C streets	do	Dec. 29			4 1/2	do	Gravel.	do	Parking		None
			1892.	Jan. 5	21	4 1/2	Wood	Clay	do	Sidewalk		8 feet
4790	8th and D streets	do	do									
4893	I street, between 11th and 12th streets	do	Feb. 23		24	5	do	do	Slow	do	Poplar	30 feet
4905	5th and G streets	do	Mar. 18		14	4	Stone	Gravel.	do	do		30 feet
COUNTY—PASSABLE.			1891.	July 15								
4210	Woodley Inn	Personal										
4580	Mount Pleasant, Home for Incurables	do	Oct. 6		36	3						
4571	Takoma, Mr. Onrau	H. O. 581	Oct. 5		23 1/2				Gravel under house.	No trees or sewers.		
4572	Tennallytown, G. W. C. Magruder	H. O. 582	do									
4573	Brightwood School	H. O. 583	do		32				Environment good.			
4620	Monroe School, 7th and Steuben streets	H. O. 584	Oct. 20		50				do			
4673	Anacostia Heights, B. Weser	H. O. 585	Dec. 7						do			
4824	Bladensburg Road, west side	Water department.	1892.	Feb. 2	75				Slow	Sidewalk	None	30 feet
4908	Trumbull and 6th streets, Mott School	H. O. 590	Mar. 8						Environment good			Not
4918	7th street, 2712	H. O. 592	Mar. 16						Surroundings below grade			
4959	9th between Lincoln and Surry streets	H. O. 593	Mar. 22						Surroundings surface drainage			
4959	11th between Bennings Road	H. O. 596	Apr. 12						Surroundings improved			
4991	1619 17th street	H. O. 598	do		32				do			
4992	1641 Bennings Road	H. O. 599	do		32				do			
4993	1525 Bennings Road	H. O. 600	do		34				do			
5067	Metropolis View, N. O. Dennison	H. O. 601	May 17									
5133	Hilldale, Nicholas avenue	Water department.	June 7		13	4 1/2	Stone	Sand	Slow	Sidewalk	Roots	None
5208	Ryan Farm	Personal	June 28		250	A	rtesia					May 5
NORTHWEST—SUSPICIOUS OR CONDEMNED.			1891.	July 15	25	3 1/2	Stone		Slow	Sidewalk	None	June 27
4213	35th and U streets	Water department.	do		25	3 1/2	do		do	do		
4349	do	do	Aug. 11									
4439	458 K street	H. O. 577	Sept. 1									
5081	do	H. O. 602	May 24									
4638	5th and Q streets	Water department.	1892.	Nov. 3	19	4 1/2	Stone	Sand	Fast	Sidewalk	Poplar	10 feet
4660	do	do	1891.	Nov. 17								Oct. 28
SOUTHWEST—SUSPICIOUS OR CONDEMNED.			1892.	Feb. 9	24	5	Stone	Sand	Fast	Sidewalk	Poplar	10 feet
4839	7th street, between G and H streets	Water department.	do									Feb. 8
4848	do	do	Feb. 16									No
4899	do	do	Mar. 11									
4917	do	H. O. 591	Mar. 16									
5056	do	Water department.	May 10									
5091	do	do	May 24									
5134	do	do	June 7				Stone	Sand	Fast	Sidewalk	Sycamore	5 feet
4949	6th and L streets	do	Mar. 22		18	4 1/2						Mar. 2
NORTHEAST—SUSPICIOUS OR CONDEMNED.			1892.	June 13	20	4 1/2	Stone	Sand	Slow	Sidewalk	No roots	Few feet
5147	Fourth and T streets	Water department.	do									May 5
SOUTHEAST—SUSPICIOUS OR CONDEMNED.			1891.	Sept. 22	30	4 1/2	Wood	Sand	Fast	Sidewalk	Maples	10 feet
4523	Eleventh street between B and C streets	Water department.	do									No
4581	do	do	Oct. 6									Oct. 1
4619	do	do	Oct. 20									
4813	Tenth and G streets	do	1892.	Jan. 20	50	4 1/2	Wood	Clay	Slow	Sidewalk	None	15 feet
4825	do	do	Feb. 2									Jan. 18
4840	do	do	Feb. 9									No
COUNTY—SUSPICIOUS AND CONDEMNED.			1891.	Sept. 28								
4550	Holmead avenue, Mr. Galloway	H. O. 579	do						Box privy within 20 feet.			
4551	1203 Rossmore street	H. O. 580	do						Drainage from house toward well			
4901	Whitney Close, Mr. Gifford	H. O. 587	1892.	Mar. 1								
4906	Tennallytown, Mr. Cowles	H. O. 588	Mar. 8						Manure and stagnant water near.			
4967	2352 Sixth street	H. O. 589	do						Out-house 75 feet distant on lower level, hole 25 feet higher level			
4953	Fifth and Colfax	H. O. 594	Mar. 22						Environment apparently clean			
									Surface drainage about it.			
SPRINGS—PASSABLE.			1891.	July 15	Good							
4209	Palisades of Potomac	Personal	Dec. 7		do							
4677	Shepherd Road, Mr. Keene	H. O. 586										
SPRINGS—SUSPICIOUS OR CONDEMNED.			1892.	Apr. 12	150 feet from cemetery.							
4988	1734 Bennings Road	H. O. 595										
MISCELLANEOUS WATERS.			1891.	July 28	(f)							
4269	Fendall Building	H. O. 574										
4352	Ward's Court	H. O. 575	Aug. 11									
4392	Cistern, 529 Sixth street NW	H. O. 576	Aug. 18									
4411	J. H. Dodge	Personal	Aug. 25									
4972	Cistern, J. F. Ellis, 529 Sixth street NW	do	1892.	Apr. 5								
5163	Freedom, Md	do	June 21			Barnyard						

\* A few small roots removed.

Roots in well.

# Analysis of well waters, 1891-'92.

(Results in parts per million.)

Serial No.	Location.	Source.	Date.	Depth.	Diameter.	Cover.	Bottom.	Flow.	Location.	Trees.	Sewer.	Cleaned.	Exhausted.	Odor.	Color.	Condition.	Total solids.	Nitrogen as free ammonia.				Nitrogen as albuminoid ammonia.				Nitrogen as nitrates.		Oxygen consumed.	Chlorine.		
																		1st dist.	2d dist.	3d dist.	4th dist.	Total.	1st dist.	2d dist.	3d dist.	4th dist.	Total.			Nitrates.	Nitrates.
NORTHWEST—PASSABLE.																															
4196	G street between 1st and North Capitol	Water department.	1891.	July 7	14	4	Wood	Sand.	Fast	Sidewalk	Sycamore	15 feet	July 3	Yes	None	Slightly cloudy.	83	.1000	Trace			.1000	.0320	.0140			.0460	.000	1.5	.58	11.0
4266	12th and Q streets	do	do	July 28	22	4	Stone	S a n d and gravel.	Slow	do	Maple	do	July 24	do	Slight organic.	Cloudy	312	Trace				Trace	.0240	.0000			.0240	.000	5	.76	82.5
4267	10th and K streets	do	do	do	18	4	do	do	Fast	do	do	None	Not	do	do	Clear	478	Trace				Trace	.0200	.0000			.0200	.000	28	.30	77.5
4434	21st street and New York avenue	do	do	Sept. 1	32	4	Wood	Clay	Slow	Main front	None	do	Aug. 26	No	do	Slightly cloudy.	563	.0140				Trace	.0140	.0320	.0000		.1040	.000	10	2.32	137.5
4524	11th and M streets	do	do	Sept. 2	30	4	do	Gravel.	Fast	Sidewalk	Sycamore	10 feet	Sept. 17	do	do	Clear	322	Trace				Trace	.0120	Trace			.0120	Trace	18	.46	73.0
4676	New York avenue between 4th and 5th streets	do	do	Dec. 8	15	5	Stone	Sand.	do	Parking	Ash	90 feet	Dec. 5	do	do	do	436	.0000	Trace			Trace	.0000	Trace			Trace	.000	25	.78	84.0
1892.																															
4796	Massachusetts avenue and 12th street	do	do	Jan. 10	30	5	do	Gravel.	Slow	Sidewalk	Maple	10 feet	Jan. 14	No	None	Cloudy	280	Trace				Trace	.0000	.0320	Trace		.0000	Trace	18	.86	52.5
5090	5th and N streets	do	do	May 24	25	4	do	do	do	do	Poplar	20 feet	do	do	Slight	Yellow tinge	410	.0000	.0200			Trace	Trace			Trace	.000	15	.84	39.0	
5132	8th street, between M and N streets	do	do	June 7	24	4	do	do	Fast	do	No roots	100 feet	June 2	Yes	Faint	Clear															
SOUTHWEST—PASSABLE.																															
4961	7th street and Maryland avenue	Water department.	1892.	Mar. 20	20	4	Wood	Sand.	V e r y fast.	Sidewalk	Sycamore	None	Mar. 25	No	Slight organic.	Yellow tinge.	334	Trace				Trace	.0000	.0240	Trace		.0840	.000	5	1.56	109.5
5029	13th and D streets	do	do	Apr. 26	36	5	do	do	Slow	do	Poplar	20 feet	Apr. 23	do	do	do	391	.0000	.0320	Trace		.0020	.0100	.0000		.0400	.000	15	.48	96.0	
NORTHEAST—PASSABLE.																															
4350	13th and D streets, brickyard	Proprietor.	1891.	Aug. 11	Driven												155	.0000	.0000			.0000	.0120	Trace		.0120	.000	.00	.58	31.0	
4605	3d street and Massachusetts avenue	Water department.	do	Dec. 15	25	5	Stone	S a n d and gravel.	Fast	Parking	Sycamore	25 feet	Nov. 25	do	Sponge	Yellow	318	Trace				Trace	.0320	Trace			.0320	.000	28	.74	51.5
1892.																															
4960	3d and C streets	do	do	Mar. 27											Organic.	Yellow tinge.	289	do				Trace	.0320	Trace			.0320	.000	5	1.56	109.5
5162	2d street, between H and North Capitol streets	Mr. Clark.	do	June 21											Slight	Blue tinge	726	Trace				Trace	.0200	.0000			.0200	.000	15	.24	124.5
5184	13th and C streets	Water department.	do		43	4	Stone	Sand.	Fast	Sidewalk	None	None	June 17	No	Organic.	Yellow	420	.0320	.0000			.0320	Trace			Trace	.000	25	.48	19.5	
SOUTHEAST—PASSABLE.																															
4579	13th street, between D and E streets	Water department.	1891.	Oct. 6	37	4	Stone	Gravel.	Fast	Sidewalk	None	None	Oct. 2		None	Clear	416	Trace				Trace	.0200	Trace			.0200	.000	5	.50	69.0
4637	9th and E streets	do	do	Nov. 3	30	4	do	Sand.	do	do	do	15 feet	Oct. 20	No	Organic.	Yellow tinge	419	Trace				Trace	.0200	Trace			.0200	Trace	15	.90	67.5
4646	do	do	do	Nov. 10											Slight organic.	do	228	.0000				Trace	.0340	Trace			.0340	.000	15	1.08	31.5
4639	6th and B streets	do	do	Nov. 3	26	4	Oak	Gravel.	Fast	Sidewalk	Maples	2 feet	2 years.	Nov. 6	No	do	294	Trace				Trace	.0020	.0000			.0200	.000	15	.38	52.5
4647	Pennsylvania avenue and 4th street	do	do	Nov. 10	23	4	Stone	Sand.	do	do	Poplar	8 feet	Nov. 6	No	do	Slightly cloudy	300	Trace				Trace	.0200	Trace			.0200	Trace	8	.98	47.0
4777	8th street, between B and C streets	do	do	Dec. 29											do	Clear	287	Trace				Trace	.0200	Trace			.0200	Trace	18	.44	29.5
1892.																															
4790	8th and D streets	do	do	Jan. 5	21	4	Wood	Clay	do	Sidewalk	do	8 feet	Dec. 8		Strong organic.	Slightly cloudy	504	.0000					.0320	Trace			.0320	.000	35	.44	95.5
4883	I street, between 11th and 12th streets	do	do	Feb. 23	24	5	do	do	Slow	do	Poplar	30 feet	Feb. 15	No	Organic.	Yellow tinge	273	.0000				Trace	.0320	.0000			.0320	Trace	8	.66	59.5
4905	5th and G streets	do	do	Mar. 18	14	5	do	Gravel	do	do	do	20 feet	Mar. 3		do	do	429	Trace				Trace	.0000	.0320	Trace		.0320	Trace	28	.62	84.0
COUNTY—PASSABLE.																															
4210	Woodley Inn	Personal.	1891.	July 15											Slight organic.	Clear	127	.0000				.0000	.0100			.0100	Trace	2	.28	8.0	
4580	Mount Pleasant, Home for Incurables	do	do	Oct. 6	36	3		Gravel under house.	No trees or sewers.				Oct. 5		do	do	88	.0200	Trace			.0200				Trace	.000	8	.30	9.5	
4571	Takoma, Mr. Oman	H. O. 581.	do	Oct. 5	234			Privy 40 feet distant							Slight organic.	Yellow tinge	101	.0320	Trace			.0320	.0000	.0320	Trace		.0320	.000	3	.60	14.0
4572	Tennallytown, G. W. C. Magruder	H. O. 582.	do					Environment good.							do	Clear	282	.0000				.0000	.0200	.0000		.0200	.000	6	.26	39.0	
4573	Brightwood School	H. O. 583.	do		32			do							do	Cloudy	110	.0200	Trace			.0200	.0320	Trace		.0320	.000	5	1.50	18.0	
4620	Monroe School, 7th and Steuben streets	H. O. 584.	do	Oct. 20	50			do							do	Clear	38	.0000				Trace	.0000			Trace	.000	.32	.48	4.5	
4673	Anacostia Heights, B. Weser	H. O. 585.	do	Dec. 7				do							None	do	214	.0000				.0000	.0200	Trace		.0200	Trace	5	.42	69.5	
4824	Bladensburg Road, west side	Water department.	1892.	Feb. 2	75			Slow	Sidewalk	None	None	30 feet	Not		Slight organic.	Cloudy	184	.0000				.0000	Trace			Trace	.000	.00	2.96	17.5	
4908	Trumbull and 6th streets, Mott School	H. O. 590.	do	Mar. 8				Environment good.							do	Blue tinge	568	.0320	.0200	Trace		.0320	.0000	.0200	Trace		.0000	Trace	15	.58	155.0
4918	7th street, 2712	H. O. 592.	do	Mar. 16				Surroundings below grade.						No	do	Yellow	90	Trace				Trace	.0320	Trace			.0320	.000	5	.66	19.5
4918	7th street, 2712	H. O. 592.	do	Mar. 16				Surroundings below grade.						No	do	Yellow	90	Trace				Trace	.0320	Trace			.0320	.000	5	.66	19.5
4959	W. between Lincoln and S. streets	H. O. 593.	do	Mar. 22				Surroundings surface drainage.							do	do	78	Trace				Trace	Trace			Trace	.000	5	.38	17.5	
4960	do	H. O. 594.	do	Aug. 12				do							do	do	187	Trace				Trace	.0320	Trace			Trace	.000	.8	.76	20.5
4961	do	H. O. 595.	do					do							do	do	166	Trace				Trace	.0320	Trace			Trace	.000	2	.62	19.5
4962	do	H. O. 596.	do		32			do							do	do	130	Trace				Trace	.0240	Trace			Trace	.000	2	.50	21.0
4963	do	H. O. 597.	do		32			do							do	do	82	.0240	.0000			.0240	.0200	Trace			Trace	.000	1.5	.30	22.5
4964	do	H. O. 598.	do		34			do							do	do	242	Trace				Trace	.0320	Trace			Trace	.000	55	.62	39.5
4965	do	H. O. 599.	do					do							do	do	158	.0320	.0000			.0320	.1000	.0720	.0200	Trace	.1020	.000	0	4.02	19.5
4966	do	H. O. 600.	do	May 17				do							do	do	57	Trace				Trace	.0120	.0000			.0120	.000	3	.90	8.0
4967	do	H. O. 601.	do					do							do	do	253	.0320	.0000			.0320	.0200	.0000			.0200	.000	.0	.10	7.0
SOUTHWEST—SUSPICIOUS OR CONDEMNED.																															
4919	25th and T streets	Water department.	1891.	July 15	25	3	Stone	Sand.	Slow	Sidewalk	None	None	June 27	Yes	Slight organic.	Yellow tinge.	180	.0480	.0128	.0000		.0008	.0240	.0140	Trace		.0380	.008	2	1.70	14.0
4920	do	do	do	Aug. 11	25	3	do	do	do	do	do	do			do	do	186	.0120	Trace			.0400	.0120	Trace		.0320	.000	3	1.38	19.5	
4921	do	do	do	Sept. 1				do	do	do	do	do			do	do	1,372	2.5000	.1820	.0600+	.0320+	2.7440+	.0000	.0320							





to them I must emphasize my statements of previous years, that unless properly protected they are the most dangerous sources of water supply, far more so than city wells, and that much sickness must be and has been attributed to them. Power should be given the health officer to inspect and where necessary to condemn all wells in the District of Columbia.

The results of my analyses are given in the following tables. They have been reported to the Engineer Commissioner or the health officer, with the following suggestions for the interpretation of the determinations:

(1) In judging the character of a water the evidence derived from the chemical analysis should be used only in connection with evidence as to the source, environment, and history of the water, without which the analysis can not be properly interpreted, and may lead to very erroneous conclusions.

(2) It is impossible to fix standards of purity beyond which in amount the presence of any substance shall condemn any water. For every locality standards of purity must be established by a study of the waters from that locality, and in the interpretation of an analysis such standard must be taken into consideration in connection with a study of the surroundings or source of the water, natural drainage levels, proximity of privies, sewers, and the like, previous or old contamination of the soil, etc. Such standards have been established for wells in the District, as follows:

*Averages of results for the several sections and classes.*

[Results in parts per million.]

Section.	Class.	Total solids.	Free ammonia.	Albuminoid ammonia.	Oxygen consumed.	Nitrogen as nitrites.	Nitrogen as nitrates.	Chlorine.	Number of analyses.
Northwest	Passable.....	274	.014	.079	.56	Trace.	12.4	44.0	28
	Suspicious or bad.....	478	.489	.188	1.65	.067	23.8	92.7	79
	All.....	423	.359	.159	1.35	.049	20.7	71.5	107
Southwest	Passable.....	566	.008	.048	.88	.000	28.0	111.0	1
	Suspicious or bad.....	606	.230	.215	1.56	.040	20.7	123.7	38
	All.....	605	.224	.211	1.54	.041	23.3	123.3	109
Northeast..	Passable.....	262	.023	.083	1.03	Trace.	21.2	33.1	5
	Suspicious or bad.....	509	.158	.170	1.74	.077	24.1	114.6	17
	All.....	410	.126	.151	1.58	.059	19.1	96.1	22
Southeast..	Passable.....	261	.044	.099	.67	Trace.	10.4	52.4	20
	Suspicious or bad.....	568	.305	.224	1.52	.022	24.6	104.0	31
	All.....	443	.201	.175	1.19	.014	19.2	85.1	51
County.....	Passable.....	118	.028	.086	.83	.001	3.2	16.0	10
	Suspicious or bad.....	191	.637	.287	2.08	.087	3.6	33.1	21
	All.....	158	.203	.199	1.54	.050	3.5	25.7	37
District....	Passable.....	237	.021	.086	.69	Trace.	9.2	41.6	70
	Suspicious or bad.....	486	.361	.209	1.67	.058	21.5	90.8	186
	All.....	415	.265	.175	1.39	.042	18.1	81.3	256

(3) Gross pollution is often revealed at once by chemical analysis, and in such a case immediate condemnation can be made on the chemical evidence alone. Sudden changes in a water previously examined, and whose normal character is known, also justifies condemnation.

(4) The nature of the evidence derived from the various determinations may be very briefly stated, as follows:

*Color, odor, and conditions.*—The best water should be free from odor and color, and should be bright, although many of the most highly contaminated waters are brightest.

*Solids.*—Entirely dependent on the source of the water. Should not be far above normal in its class. Springs and rivers contain less than well waters, and cisterns or rain water least of all.

*Nitrogen as free ammonia* is the product of putrefaction of organic matter, and is evidence of contamination in almost all cases.

*Nitrogen as albuminoid ammonia* points to the presence of nitrogenous organic matter not decomposed, which may be of either animal or vegetable origin. When the ammonia is evolved slowly by alkaline permanganate, it is of recent origin; of animal derivation, with low oxygen consumed and high chlorine; of vegetable if the oxygen consumed is high and chlorine low. When rapidly evolved it shows decomposing organic matter.

*Nitrogen as nitrites* is indicative of active putrefactive change, except in deep waters. Its presence in more than traces is condemnatory unless the water is otherwise quite clean.

*Nitrogen as nitrates* is evidence of the final oxidation of organic matter, and points to previous contamination, at present not dangerous unless present in gross amount, if nitrites are absent and the water is otherwise clean.

*Oxygen-consuming power.*—This should not be high, but its value is chiefly in connection with the interpretation of other results.

*Chlorine.*—The proportion in waters of any locality is fairly constant. When it exceeds the average it must be determined that its origin is not in sewage or animal excretions, in which it is a large constituent and of the presence of which it is a strong indication.

Dependence should not be placed on any one of these determinations alone, nor in all of them together, except when studied in their relations to each other and in connection with the source, environment, and history of the water.

As the result of the preceding analyses the following wells have been filled and abandoned during the past fiscal year:

Eighth and P streets NW.; Eleventh and Q streets NW.; Harrison street, Anacostia; L street between Twelfth and Thirteenth NW.; Twenty-first street and Florida avenue NW.; Seventh street between Florida avenue and Pomeroy NW.; Tenth street between T and U NW.; Seventh street between V and W NW.; Tenth and G streets SE.; Sixth and L streets SW.; F street between Ninth and Tenth SW.; Tenth street between O and P NW.; N street between Nineteenth and Twentieth NW.; Fourth and I streets NW.

#### AQUEDUCT WATER.

Analyses of the aqueduct water, drawn from a tap in the laboratory of this office, have been continued, at intervals, as heretofore. The results appear in the following table:

*Analyses of aqueduct water July, 1891—to July, 1892.*

[Results in parts per million.]

Serial number.	Date.	Condition at distributing reservoir.	Total solids.	Nitrogen as—				Oxygen consumed.	Chlorine.	Remarks.
				Free ammonia.	Albuminoid ammonia.	Nitrites.	Nitrates.			
1891.										
4214	July 15	36	128	.0000	.0920	.000	.5	2.40	4.0	Slightly cloudy.
4258	July 28	7	144	Trace	.0920	.000	.6	2.38	4.0	Muddy.
4351	Aug. 11	16	96	.0000	.0840	.000	.6	2.18	4.0	Slightly turbid.
4413	Aug. 25	36	104	Trace	.1600	.000	.6	1.30	4.0	Cloudy.
4529	Sept. 22	36	124	.0080	.0440	.000	.5	.98	4.0	Slightly cloudy.
4582	Oct. 6	36	104	Trace	.0320	.000	.6	.96	4.5	Do.
4645	Nov. 10	36	119	.0000	.0200	.000	.6	1.58	4.0	Do.
4666	Dec. 1	4	140	Trace	.0800	.000	.5	3.96	4.5	Slightly turbid.
4778	Dec. 29	4	118	.0000	.0320	M. trace	.6	2.50	4.0	Muddy.
1892.										
4797	Jan. 19		168	Trace	.0920	.000	.5	2.96	4.0	Turbid.
4826	Feb. 2	36	140	.0000	.0320	.000	.8	1.22	4.0	Slightly cloudy.
4846	Feb. 16	3	90	Trace	.0800	.000	.6	1.22	4.0	Turbid.
4900	Mar. 11	3	87	Trace	.0320	.000	.6	1.30	4.0	Slightly turbid.
4922	Mar. 16	7	118	Trace	.0920	.000	.6	2.56	4.0	Turbid.
4962	Mar. 29	6	110	Trace	.0940	.000	Trace	1.98	5.0	Do.
5030	Apr. 26	11	88	Trace	.0800	.000	.6	2.10	4.0	Slightly cloudy.
5092	May 24	36	94	Trace	.0240	.000	.6	.78	5.0	Do.
5135	June 7	36	82	Trace	.0200	.000	.5	1.10	6.0	Do.
5165	June 21	27	92	Trace	.0320	.000	.6	1.70	5.0	Do.
Average .....			113	Trace	.0640	.000	.6	1.85	4.3	
Highest .....			168	.0080	.1600	Trace	.8	3.96	6.0	
Lowest .....			82	.0000	.0200	.000	Trace	.78	4.0	

The average composition of aqueduct water for the fiscal year 1891-'92 is not far different from that for 1890-'91. In May and June, 1892, the water was, however, particularly free from *nitrogenous organic matter*, and was generally low in organic matter not nitrogenous, as evinced by the following figures:



*Averages of composition aqueduct water.*

[Results in parts per million.]

	Solids.	Nitrogen as—				Oxygen con- sumed.	Chlorine.
		Ammonia.		Nitrites.	Nitrates.		
		Free.	Albu- minoid.				
1888-'89 .....	111	.0140	.1580	.000	.9	1.91	4.2
1890-'91 .....	104	.0043	.0627	.000	.6	1.91	4.3
1891-'92 .....	113	Trace.	.0640	.000	.6	1.97	4.3
May and June, 1892 .....	89	Trace.	.0250	.000	.6	1.85	5.3

In general the water may be said to be in excellent condition, and to compare extremely favorably at present with that of other cities. Its only defect, the presence of suspended clay in the winter, can be remedied in the manner suggested by Col. Elliot, by greater opportunity for subsidence.

## ACTION OF FILTERS ON AQUEDUCT WATER.

In December an examination was made of aqueduct water as drawn from the tap, and again after passing filters, one purely mechanical and the other chemical and mechanical.

Following are the results:

[Parts per million.]

	Tap.	Hyatt.	McDonald.
Conditions .....	Turbid.	Bright.	Bright.
Solids .....	132	110	64
Volatile .....	42	8	20
Nitrogen, as—			
Free ammonia .....	Trace.	Trace.	Trace.
Albuminoid ammonia .....	.1560	.0320	.1320
Nitrites .....	.000	Min. trace	Trace.
Nitrates .....	.6	.5	.5
Oxygen consumed .....	3.96	.80	1.12
Chlorine .....	4.0	4.0	4.0

These determinations scarcely need an explanation, as they are what would be naturally expected. The chemical filter removes the most organic matter, but by the introduction of mineral salts leaves the total solids but little reduced. The aqueduct water is, from the nature of its mineral constituents, particularly well suited to the alum or iron treatment, and the filters in which this is an element seem to work satisfactorily when properly regulated, leaving a quite insignificant trace of alumina behind.

## EFFLUENT SEWAGE FROM THE BOUNDARY INTERCEPTING SEWER.

The examination of this effluent, the beginning of which was published in my last report, has been completed, with the results here tabulated.

As I have previously stated, this investigation was undertaken in consequence of complaints having been made that it occasioned a nuisance.

The outlet of the sewer is a pool, varying somewhat in depth from 2½ to 5 feet, which backs up a little distance into the sewer itself. This pool overflows into a shallow rippling stream, which runs into the Eastern Branch. This dilutes the sewage with clean water below the sewer. Where this diluted sewage runs over a gravelly bed a short distance below the point of mixture I have called the ripples. Samples collected here represent the effluent into the river. In the pool samples have been collected at the surface, near the bottom, and at medium depths.

## Analyses of effluent sewage—Boundary sewer.

[Results in parts per million.]

Serial No.	Date.	Portion.	Weather.	Condi- tion.	Total sol- ids.	Loss on ignition.	Inor- ganic.	Nitrogen as free ammonia.					Nitrogen as albuminoid ammonia.					Nitrogen as trites.		Oxygen consumed.	Chlorine.	
								1st dist.	2d dist.	3d dist.	4th dist.	5th dist.	Total.	1st dist.	2d dist.	3d dist.	4th dist.	5th dist.	Total.			Ni- trates.
3933	1891. May 5	Surface.	Two days after .558 rain.	Slightly cloudy.	172	83	89	.3520	.1800	.0600	trace.	.....	.5920	.0720	.0246	.0100	.....	.....	.1060	.028	5.8	.9832.5
3934	do	Middle	.....	.....	112	54	58	.3800	.1000	.0320	.....	.....	.5120	.0600	.0320	.0140	.....	.....	.1060	.038	3.8	1.7014.5
3935	do	Ripple.	.....	.....	113	55	48	.3920	.1400	.0320	.....	.....	.5640	.1000	.0200	.0140	.....	.....	.1340	.038	3.8	1.5019.0
4025	May 26	Surface.	Dry weather and heavy rain 25th.	Muddy.	314	106	208	.4600	.2200	.0600	.0140+	.....	.7520+	.1520	.0720	.0320	.0200+	.....	.2760+	.035	8.	6.0019.0
4026	do	Middle	.....	.....	468	98	370	.6600	.3000	.1280	.0140+	.....	1.1020+	.2660	.1000	.0600	.0400	.0320+	.4960+	.040	2.5	6.8015.0
4027	do	Bottom	.....	.....	154	54	100	.6320	.3000	.0600	.0240+	.....	.9760+	.1920	.0600	.0320	trace.	.....	.2840	.038	2.5	6.4415.0
4028	do	Ripple.	.....	.....	208	64	144	.6400	.3120	.0600	.0200	.0120+	1.0440+	.2600	.0640	.0320	trace.	.....	.2760	.038	2.6	6.7615.0
4155	June 23	Surface.	After con- tinuous rains.	Yellow, turbid.	200	74	126	.2200	.1000	.0240	trace.	.....	.3440	.1000	.0600	.0200	.0320+	.....	.2120+	.030	8.	3.2626.5
4156	do	Middle	.....	.....	151	36	115	.1400	.0600	.0080	.....	.....	.2080	.1920	.1000	.0600	.0240+	.....	.3760+	.038	5.	5.3817.5
4157	do	Bottom	.....	.....	150	44	106	.1120	.0600	.0120	.....	.....	.1840	.2200	.1000	.0600	.0320+	.....	.4120+	.045	5.	5.1017.5
4158	do	Ripples	.....	.....	180	58	122	.2200	.0600	.0240	.....	.....	.4040	.1420	.1000	.0600	.0240+	.....	.3260+	.040	8.	4.5017.5
4197	July 7	Surface.	.....	.....	162	60	102	.1800	.1400	.0080	.....	.....	.3280	.1400	.0600	.0320	.0100	.....	.2420	.064	5.	2.3624.0
4198	do	Bottom	.....	Cloudy	130	40	90	1.3000	.8000	.1120	.0100+	.....	2.2210+	1.3600	.1400	.0800	.0600+	.....	1.6400+	.084	2.5	7.0017.5
4199	do	Ripples	.....	.....	114	62	52	1.3600	.1420	.0600	.0080	.....	1.5700	.1800	.1000	.0400	.0080	.....	.3280	.090	5.	3.2017.5
4243	July 21	Surface.	Two days after, 1.290 rains.	Cloudy	185	86	99	2.8000	1.4000	.0480	trace.	.....	4.2480	.1000	.0624	.0140	trace.	.....	.1764	.048	8.	1.9024.0
4244	do	Middle	.....	.....	122	52	70	.4000	1.8000	.0600	trace.	.....	5.6600	.1520	.1000	.0400	.0240+	.....	.3160+	.035	3.	4.3616.5
4245	do	Bottom	.....	.....	138	56	82	3.5900	1.4000	.0326	trace.	.....	4.9320	.1800	.0720	.0326	.0140+	.....	.2980+	.028	5.	3.7016.5
4246	do	Ripples	.....	.....	126	48	88	3.5000	1.4000	.0152	trace.	.....	4.9152	.1520	.0600	.0320	.0160+	.....	.2600+	.035	3.	4.0016.5
4353	Aug. 12	Surface.	After very dry period.	Slightly cloudy.	195	84	111	.4500	.2200	.0600	.0200	trace.	.7500	.1400	.0600	.0320	.0200	+	.2520+	.065	5.	3.3829.5
4354	do	Middle	.....	do	142	54	88	.4600	.3800	.1000	.0240	+	.9640+	.1920	.1000	.0720	.0240	+	.3880+	.065	10.	163.3817.5
4355	do	Bottom	.....	do	148	62	86	.4800	.2320	.0720	.0200	.....	.8040	.1800	.1000	.0720	.0200	+	.3720+	.065	10.	162.1217.5
4356	do	Ripples	.....	do	170	62	108	.5500	.1120	.0600	.0200	.....	.7420	.1800	.0800	.0600	.0240	+	.3440+	.075	10.	30.3.7821.0
4435	Sept. 1	Surface.	After dry weather.	do	217	113	104	.3800	.1800	.0720	.0140	+	.6180+	.3500	.0600	.0320	.....	.....	.4420+	.028	10.	1.9624.0
4436	do	Middle	.....	do	118	42	76	.3500	.0600	.0320	trace.	.....	.4420	.4500	.1120	.0720	.0600	+	.6940+	.038	5.	4.4220.0
4437	do	Bottom	.....	do	138	62	76	.1800	.1400	.0600	.0320	+	.4120+	.3800	.0600	.0320	.0140	+	.4860+	.035	8.	4.1021.0
4438	do	Ripples	.....	do	.....	.....	.....	.3500	.0400	.0600	.0200	+	.4700+	.1120	.0320	.0200	.0140	+	.1780+	.030	5.	4.3221.0
4525	Sept. 22	Surface.	.....	Cloudy	224	72	152	.3800	.1500	.1000	.0240	+	.6540+	.0720	.0240	.0080	+	.....	.1040+	.040	6.	3.7031.5
4526	do	Middle	After very dry period.	do	145	65	80	.6800	.5500	.1120	.0600	+	1.4020+	.1800	.1000	.0720	.0480	+	.4000+	.038	3.	3.6016.0

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 447

4527	do	Bottom	138	60	78	7800	1500	1120	0320	+	1.0740+	2320	1520	.0720	0600	+	5160+	.035	3.	4.0415.0
4528	do	Ripples	168	64	104	5500	4500	1400	0600	+	1.2320+	2240	1600	.1120	0240	+	5200+	.035	5.	3.5824.0
4584	Oct. 7	Surface	211	74	137	2600	1120	0600	trace	.....	.4320	0800	0600	.0120	trace	.....	1520	.052	10.	1.5025.0
4585	do	Middle	144	60	84	5500	1920	0600	0152	+	.8172+	2000	1400	.0840	0600	+	4840+	.045	5.	5.6022.5
4586	do	Bottom	136	48	84	3800	1400	0600	0240	+	.6040+	2000	0720	.0320	0200	+	3240+	.035	5.	3.6420.0
4587	do	Ripples	136	48	84	4000	1520	0400	trace	.....	.5560	1400	0600	.0200	0120	.....	2320	.036	3.	5.6020.0
4648	Nov. 10	Surface	153	76	77	3800	1400	0600	0320	+	.6120+	1400	1000	.0720	0320	+	3440+	.020	8.	3.3819.5
4649	do	Middle	124	51	73	3500	1120	0600	0200	+	.4620+	1800	0800	.0600	0320	+	3520+	.025	6.	5.1215.0
4650	do	Bottom	148	60	88	4800	1120	0720	0320	+	.6960+	1400	0800	.0600	0320	+	3120+	.020	8.	5.9615.0
4651	do	Ripples	132	58	74	2500	0720	0320	0200	+	.3740+	1400	0720	.0600	0200	+	3040+	.025	6.	4.3615.0
4692	Dec. 15	Surface	158	84	74	7680	1800	1000	0600	+	1.1080+	1000	0320	trace	0000	.....	1330	.025	4.8	3.0421.5
4693	do	Middle	130	57	73	7200	1000	0320	trace	.....	.8520	1920	1000	.0600	0320	+	3840+	.025	2.5	4.5017.5
4694	do	Bottom	112	40	72	7200	1920	1400	0600	+	1.1120+	1520	0720	.0400	trace	.....	2640	.030	1.8	4.2017.5
4695	do	Ripples	120	46	74	7200	1920	1120	0320	trace	1.0560	1800	1000	.0600	0320	+	3720	.026	2.8	3.8217.5
4814	Jan. 26	Surface	132	52	80	4500	1520	0720	0320	+	.7060+	1000	0200	trace	.....	.....	1200	.020	3.8	2.9017.5
4815	do	Middle	138	60	78	4800	1000	0600	0320	+	.6720+	1800	1000	.0320	+	.....	3120+	.023	2.6	3.8016.5
4816	do	Bottom	128	62	66	4800	1800	1200	0320	+	.8120+	1400	0600	.0320	trace	.....	2320	.028	2.0	3.7214.5
4817	do	Ripples	134	72	62	1.4500	1800	1000	0200	+	.7500+	1920	1000	.0600	0200	+	3620+	.025	2.5	3.6017.5
4894	Feb. 23	Surface	127	49	78	4800	2500	0600	0200	+	.8100+	1400	0720	.0320	0200	+	2640+	.030	5.0	2.2622.8
4895	do	Middle	116	54	62	5500	3500	0600	0200	+	.9800+	1800	1120	.0720	0320	+	3060+	.030	5.0	4.4017.5
4896	do	Bottom	94	54	40	4500	2800	0600	0320	+	.8220+	1800	1000	.0320	trace	.....	3120	.038	4.0	2.8017.5
4897	do	Ripples	126	60	66	4800	1000	0720	0320	+	.6840+	1520	0720	.0320	trace	.....	2560	.040	6.0	2.9021.5
4963	Mar. 29	Surface	155	55	100	4500	1520	0600	0200	+	.6820+	1920	1000	.0600	0400	+	3920+	.015	1.6	6.5014.0
4964	do	Middle	139	51	88	4500	1600	0600	trace	.....	.6700	1600	1000	.0720	0320	+	3640+	.015	1.2	6.5014.0
4965	do	Bottom	128	48	80	4500	1920	0600	0320	+	.7340+	1920	1000	.0720	0400	+	4040+	.020	1.2	7.2014.0
4966	do	Ripples	148	52	96	5000	1800	0720	0240	+	.7760+	1800	1000	.0720	0600	+	4120+	.018	.75	6.5014.0



Averages of the preceding results for each portion or depth of the effluent, together with the extremes for each constituent determined, show in a concise way the character of the entire flow, the differences found at different depths, and the extent of the variation in composition produced by rainfall and other modifying causes.

*Average and extreme composition of Boundary sewer effluent.*

[Parts per million.]

	Total solids.	Loss on ignition.	Nitrogen as—				Oxygen consumed.	Chlorine.
			Free ammonia.	Albuminoid ammonia.	Nitrites.	Nitrates.		
<b>Averages:</b>								
Surface .....	186	76	.9597	.2297	.035	6.5	3.08	24.1
Middle .....	172	56	1.2110	.3898	.035	3.4	4.53	16.
Bottom .....	134	53	1.1833	.4505	.038	3.7	4.70	16.
Ripples .....	145	58	1.0812	.3074	.040	3.8	4.20	18.3
<b>Extremes—</b>								
Surface:								
Highest .....	314	113	4.2480	.4420	.065	10.0	6.50	37.5
Lowest .....	127	49	.3280	.1040	.015	1.6	.98	14.0
Middle:								
Highest .....	468	98	5.6600	.6940	.065	6.0	6.80	22.5
Lowest .....	112	36	.2080	1060	.015	.16	1.70	14.0
Bottom:								
Highest .....	154	62	4.9320	1.6400	.084	8.0	7.20	21.0
Lowest .....	94	40	.1840	.2320	.020	.16	2.80	14.0
Ripples:								
Highest .....	208	72	4.9152	.5200	.090	6.0	6.76	24.0
Lowest .....	113	46	.3740	.1340	.018	30	1.50	14.0

Relatively the surface portion of the effluent contains the most solid and organic matter, but the oxidation of this portion is much more complete than any of the others as evinced by the highest proportion of nitrogen in the form of nitrates, and the smallest amount of oxygen necessary for oxidation of organic matter. It contains the most chlorine as a natural accompaniment of the most organic matter.

As we go deeper in the effluent there is a regular decrease in the solid matter which it contains, and an increase in the unchanged organic matter as evinced by the nitrogen in the form of albuminoid ammonia, and the larger amount of oxygen required for its oxidation. Nitrification, too, seems a little more active at the bottom than at the surface.

At the ripples, where all are more or less mixed, and a good deal aerated, we find about an average of all the effluents with signs of a rather more active nitrification.

Active oxidation and nitrification seem to be in progress at all depths and at all times, but varying with the season of the year, and greatest during the first warm weather.

The variations in composition from time to time do not seem to correspond entirely to the amount of precipitation.

In the tabulation of the preceding results under the heading of weather, the general character of that preceding the time of collection of the sample is given.

A more thorough statement has been prepared by Mr. Thurston, observer of the sewer department, covering the interval between each collection. The conclusion derived from a comparison of the analyses with the accompanying meteorological data are of interest.

**Collection of May 5:\***

April 18, thunderstorm in evening, .415 inch.

19-22, warm, pleasant, spring weather.

23, shower in night, .080 inch.

24-May 2, very pleasant, no rain.

May 3, heavy rains, .558 inch.

4, pleasant.

5, cloudy.

The effluent after two days of dry weather following a heavy rain is cleaner than the average, and the organic matter very thoroughly oxidized, more so than on any other occasion.

\* Precipitation, cylinder or pot-gauge, High School building.

## Collection of May 26:

- May 6-10, pleasant, without rain.
- 11, shower in evening, .190 inch.
- 12-13, pleasant.
- 14-16, cloudy; showers, .422 inch.
- 17-22, pleasant; a shower on 20th, .115 inch.
- 23, rain in morning, .150 inch.
- 24, rain in morning, .127 inch.
- 25, evening hard rain, .750 inch.
- 26, cloudy.

On this occasion we have a long period of pleasant weather with light rains, followed by a heavy rain, the evening before the collection of the effluent. The effluent is dirty and the organic matter fresh and little oxidized, as shown by the slow evolution of nitrogen present albuminoid ammonia, and the large quantity of "oxygen consumed." A large amount of suspended matter increases the total solids to the extreme.

## Collection of June 23:

- June 7, rain, .260 inch.
- 7-18, pleasant.
- 18, in morning, .100.
- 19, in morning, 1.100 inches; cloudy.
- 20, cloudy.
- 21, rain, 1.440 inches.
- 22, rain toward evening, .210 inch.
- 23, pleasant.

The effluent on this date was after long and continued rain, and is of very uneven character. The precipitation has been so heavy as to wash the sewers clean of sewage, comparatively, and to furnish practically merely a storm water which in itself is not extremely dirty.

## Collection of July 7:

- June 23-July 1, pleasant.
- July 1, heavy rains, 2.780 inches.
- 2-4, showers; total, .170 inch.
- 5-6, pleasant.
- 7, cloudy.

Six days of dry weather after an extremely heavy rain produces an effluent that is very dirty on the bottom from subsidence, but comparatively clean on the surface.

## Collection of July 21:

- July 8, p. m., heavy rain, 1.200 inches.
- 8-13, pleasant.
- 14, cloudy.
- 15, heavy rains p. m. 1.010 inches.
- 16-17, pleasant.
- 18-19, raining 1.290 inches.
- 20, pleasant, shower p. m. .080 inches.
- 21, cloudy.

Two days after a heavy rain, and after two weeks in which the precipitation amounted to 3.580 inches, the effluent reaches its extreme of filthiness as regards nitrogen evolved as free ammonia, not being however exceptionally dirty in other respects. The middle portion is in this case the most polluted.

## Collection of August 12:

- July 28-29, rain, .670 inch.
- 29-August 4; no rain.
- August 4, rain a. m. .080 inch.
- 5, cloudy, .010 inch.
- 6-12, hot, with little rain, .010 inch on 8th.

This collection was made after a very dry period. The effluent is in a state of active nitrification, and is otherwise about as dirty as the average. The excessive dryness seems to have had no effect beyond the more active nitrification, and that it furnishes an effluent which should naturally be representative of the sewage unmixed with storm water.

Nitrogen is high in the form of free ammonia, and very low as nitrates, the ultimate form of its oxidation in all portions but the surface.

## 450 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

### Collection of September 1:

August 12-14, pleasant.  
15, rain, .120 inch.  
16-20, pleasant; .030 inch on 18th.  
21, rain in night; .640 inch.  
22, hot.  
23-25, showers; 1.580 inches.  
26, cloudy.  
27-29, showers; .110.  
31 and September 1, pleasant.

The effluent after a seven day's interval of dry weather is not characterized by any marked peculiarity or change over the preceding, except that nitrates are present in greater amount; in fact to the extreme, and chlorine, indicative of sewage, is above the average.

### Collection of September 22:

September 2, heavy showers p. m.; .720 inch.  
3-4, pleasant.  
5, heavy rains; 1.790 inches.  
6-12, very pleasant.  
13-22, pleasant; .080 inch on 13th.

This is another very dry period of seventeen days after heavy rains. The bottom again becomes dirty by subsidence, while the surface is quite clean, but above the average in solids, and the ripples dirtiest of all, with quite fresh organic matter, all portions except the surface carrying more than the average of undecomposed organic matter.

The three previous samples and the next seem to represent very well the varying summer effluent uncontaminated with storm-water.

### Collection of October 7:

September 23-28, warm and pleasant.  
29, .210 inch.  
30-Oct. 5, pleasant.  
October 6, 7, drizzles; .260 inch.

This period was a warm and quite dry period, the effluent being much like that after the dry interval on September 1, rich in chlorine and sewage.

### Collection of November 10:

October 8-11, cloudy; no rain.  
12, 13, drizzles; .210 inch.  
14-18, pleasant.  
19, rain; .590 inch.  
20, 21, cloudy.  
22, rain; .640 inch.  
23-November 4, pleasant; .050 inch on 26th.  
November 5, rain; .330 inch.  
6-10, pleasant.

The effluent at this collection evidently was not modified largely by the precipitation or weather. It seems again to be a representative of the ordinary flow of the sewer.

### Collection of December 15:\*

December 1-3, pleasant.  
4, rain p. m., .340 inch.  
5, 6, pleasant.  
7, rain a. m., .785 inch.  
8-15, pleasant.

The effluent at this collection represents well the flow of the sewer in the cold portions of the year uninfluenced by any immediate precipitation and storm water. Oxidation has not been quite so complete and nitrates are lower than the average, while free ammonia is fully up to it. Nitrification is evidently not as active in cold weather.

\*Precipitation, recording rain gauge on Franklin Square school building, pot gauges having been taken in.



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 451

## Collection of January 26, 1892:

January 11-14, rainy, 1.665 inches.  
 15, about 8 inches of snow.  
 16, 17, pleasant; snow melting.  
 18, 19, rainy precipitation; melting snow of 15th, .893 inch.  
 20-25, very pleasant.  
 26, cold and windy.

In this effluent again we find low nitrates, owing to the cold. It is not remarkable in any other way as being different from the average.

## Collection of February 23:

February 1-4, mild weather; springlike.  
 5, snowing night and day till 4 p m.  
 6, cool.  
 7, rainy, with snow of 5th, .619 inch.  
 8-11, mild spring weather.  
 12, 13, cooler, chilly.  
 14-23, moderate weather; no rain in gauge.

The effect of the mild weather before this date is to increase the nitrates at once above the average. Beyond this the effluent seems unchanged. The solids are below the average, and the middle the dirtiest portion of the effluent.

## Collection of March 29:

March 15-18, snow each day; .698 inch precipitation.  
 19-21, clear.  
 22, cloudy, moderate.  
 23, showers; .111 inch.  
 24, 25, warm.  
 26, 27, rainy; 1.439 inches.  
 28, 29, pleasant.

This effluent is distinguished by the lowest chlorine, nitrites, and nitrates to be found in any one collection. It, on the other hand, contains much undecomposed organic matter requiring a large amount of oxygen for its oxidation.

From the preceding results it appears that the effluent is at no time filthy, when compared with average sewage, as can be seen by reference to the following analyses of sewage from several other sewers of the District made in 1889 and the average composition of that from the main sewer of the city of Lawrence, Mass., from December, 1888, to October, 1889. On the continent, in thickly populated districts, sewage containing 2,000 parts or more of solids per million is often found.

### Analyses of sewage.

[Results in parts per million.]

Locality.	Date.	Precipitation.	Condition.	Total solids.	Organic and volatile.	Ammonia.		Nitrogen as—		Oxygen consumed.	Chlorine.
						Free.	Albuminoid.	Nitrites.	Nitrates		
Washington:											
Seventeenth st.	Apr. 27	Heavy	Turbid	248	92	1.448	2.840	.000	5.0	22.0	13.8
James Creek	do	do	Very turbid.	328	88	1.448	2.240	.000	3.0	22.0	14.5
Seventeenth st.	June 11	Dry	Very dirty.	1,096	450	43.000	8.300	.000	1.5	53.0	40.0
Sixth street	June 24	do	do	226	76	37.400	5.200	.000	0.0	36.0	30.0
Seventeenth st.	do	do	do	248	148	14.000	3.000	.000	0.0	36.0	30.0
Tiber	do	do	do			26.600	3.000	.000	0.0	30.0	40.0
Lawrence:											
Unfiltered, 1888-'89.				327.8	245.5	17.017	6.296				52.5
Filtered.				227.0	107.0	16.399	2.162				52.5

It is evident therefore that this effluent is a very clean one, carrying but little more solid matter than the Potomac water of the Eastern Branch, and that it never could be considered a foul stream unless from an immediate local cause, such as dead animals or offal introduced illegally. Following are some analyses of the water of the Eastern Branch and of the river, which were made for the Sewage Commis-

## 452 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

sion, and serve to show the relation of the effluent to the waters of the adjoining streams.

The samples were collected in a way to illustrate the average condition of the mass of water in the streams, being taken in small portions in a line across the streams, and from 1 to 2 feet below the surface, according to well known methods. The results were as follows:

*Water in the Eastern Branch at Buzzard Point.*

[2757. December 2, 1889, 9.30 a. m.; low water at 9.35 a. m. 2777. December 9, 1889, 2.50 p. m.; low water at 3.15 p. m. 2861. December 31, 1889, 9.10 a. m.; low water at 9.18 a. m.]

Serial No.	Condition.	Color.	Total solid.	Organic and volatile.	Nonvolatile.	Free ammonia.			Nitrogen as free ammonia.	Albuminoid ammonia.			Nitrogen as albuminoid ammonia.	Oxygen consumed.	Nitrogen as nitrites.	Nitrogen as nitrates.	Chlorine.
						First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.		First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.					
2757	Turbid.....	.0	128	58	70	.500	.060	.500	.412	.360	.000	.360	.296	1.92	Tr.	.5	4.5
2777	Slightly turbid.	.5	114	44	70	.540	.100	.660	.544	.232	.000	.232	.211	1.44	.005	.8	4.5
2861	.....do.....	.0	132	53	79	.360	.060	.420	.346	.152	.000	.152	.125	1.30	.008	.6	4.5

*Water in the Eastern Branch, between First and Second streets, east.*

[2759. December 1, 1889, 2.30 p. m.; high water, 3.05 p. m. 2779. December 10, 1889, 8.45 a. m.; high water, 9.44 a. m. 2860. December 30, 1889, 1.45 p. m.; high water, 2.32 p. m.]

Serial No.	Condition.	Color.	Total solid.	Organic and volatile.	Nonvolatile.	Free ammonia.			Nitrogen as free ammonia.	Albuminoid ammonia.			Nitrogen as albuminoid ammonia.	Oxygen consumed.	Nitrogen as nitrites.	Nitrogen as nitrates.	Chlorine.
						First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.		First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.					
2759	Turbid.....	.0	144	68	76	.220	.000	.220	.181	.208	.000	.208	.171	3.38	Tr.	.5	4.5
2779	Clear.....	.5	126	38	88	.160	.020	.180	.147	.140	.012	.152	.125	1.06	Tr.	.6	4.5
2860	Slightly turbid.	.0	144	60	84	.300	.000	.300	.247	.172	.032	.204	.168	1.26	Tr.	.5	4.5

*Water in Georgetown Channel, between buoys 4 and 6.*

[2758. December 1, 1889, 1:55 p. m.; high water, 3:05 p. m.; 2778. December 9, 1889, 1:45 p. m.; low water 3:13 p. m.; 2862. December 30, 1889, 1:15 p. m.; high water, 2:32 p. m.]

Serial No.	Condition.	Color.	Total solids.	Organic and volatile.	Nonvolatile.	Free ammonia.			Nitrogen as free ammonia.	Albuminoid ammonia.			Nitrogen as albuminoid ammonia.	Oxygen consumed.	Nitrogen as nitrites.	Nitrogen as nitrates.	Chlorine.
						First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.		First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.					
2758	Turbid.....	.0	126	60	66	.008	.000	.008	.007	.140	.000	.140	.115	1.46	.000	.5	4.5
2778	Slightly turbid.	.3	132	42	90	.008	.000	.008	.007	.112	.000	.112	.092	.90	Tr.	.8	4.5
2860	Clear.....	.0	144	76	68	.048	.000	.048	.039	.180	.000	.180	.148	1.28	Tr.	.8	4.5

*Water from Potomac at Great Falls drawn through laboratory tap.*

[2760, December 2, 1889, a. m.; 2780, December 9, 1889, a. m.; 2864, December 31, 1889, a. m.]

Serial No.	Condition.	Color.	Total solids.	Organic and volatile.	Nonvolatile.	Free ammonia.			Nitrogen as free ammonia.	Albuminoid ammonia.			Nitrogen as albuminoid ammonia.	Oxygen consumed.	Nitrogen as nitrites.	Nitrogen as nitrates.	Chlorine.
						First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.		First 50 cubic centimeters.	Second 50 cubic centimeters.	Total.					
2760	Turbid .....	.0	120	54	66	.008	.000	.008	.007	.232	.000	.232	.191	1.78	.000	.6	4.5
2780	Turbid .....	.3	104	40	64	.000	.000	.000	.000	.232	.012	.244	.201	1.70	.000	.8	4.0
2864	Turbid .....	.0	130	52	78	.008	.000	.008	.007	.140	.000	.140	.115	1.06	.000	.8	4.5

## HYDRAULIC CEMENTS.

The amount of labor involved in the inspection of hydraulic cements has continued to increase over previous years, as may be seen from the following list of natural cements which have been tested:

Brands.	Lots.	Samples.	Brands.	Lots.	Samples.
Round Top .....	231	2,771	Rock Lock .....	2	2
Antietam .....	96	338	Louisville .....	1	1
Cumberland .....	22	83	Sellersburg, Ind .....	1	1
Shepherdstown .....	10	42	Miscellaneous .....	3	3
Cumberland and Potomac .....	15	22	Samples with bid .....	4	4
Cedar Cliff .....	4	4			
Acme .....	2	2	Total .....	391	3,273

During 1890-'91 only 199 lots and 1,606 samples were tested.

In addition to the above samples, several large lots were examined as to the fineness of every barrel.

Representative tests of the various brands examined are given in the following table:



Representative tests of natural hydraulic cements.

Brand.	Serial No.	Date.	Residue on sieve.		Serial No.	Date.	Initial set.	Tensile strength.				Water in mortar.		Temperature.		
			50.	100.				Neat.			Two parts quartz.		Neat.	Quartz.	Water.	Air.
								1 day.	7 days.	28 days.	7 days.	28 days.				
Round Top:			Per ct.	Per ct.			Minutes.					Per ct.	Per ct.	°	°	
Best .....	5198	June 23, 1892	2	8	5189	June 23, 1892	13	98	246	294	168	282	33.5	15.4	82	88
Poorest .....	4923	Mar. 6, 1892	5	24	4642	Nov. 7, 1891	13	80	164	206	72	102	33	15	70	68
Average .....	4992	Jan. 15, 1892	3	18	4992	Jan. 15, 1892	17	76	180	226	106	198	33	14.3	72	76
Antietam:																
Best .....	5253	July 13, 1892	.5	4	4305	Aug. 3, 1892	38	60	174	392	100	204	32	14	76	78
Poorest .....	4995	Apr. 13, 1892	3.5	22	4995	Apr. 13, 1892	35	56	154	320	58	112	29.5	13.4	72	74
Average .....	4285	July 30, 1891	2.5	15	4287	July 30, 1891	42	44	130	306	64	190	32	14.3	77	76
Cumberland (average) .....	4490	Sept. 12, 1891	2.6	18.2	4994	Apr. 13, 1892	14	62	302	458	82	176	32	14.5	72	76
Shepherdstown (average)...	4496	Sept. 12, 1891	2	15	4373	Aug. 13, 1892	15	50	176	322	92	196	32	12.2	80	82
Cumberland and Potomac (average) .....	5155	June 24, 1892	1	14	5155	June 16, 1892	45	104	294	438	104	264	32	15.8	80	88
Cedar Cliff (average) .....	4516	Sept. 25, 1891	10	30	4546	Sept. 25, 1891	45	96	170	262	60	.....	31.5	14.2	78	82
Rock Lock (average) .....	4457	Sept. 4, 1891	2	16	4457	Sept. 4, 1891	70	82	120	262	62	118	32	15	76	84
Acme (average) .....	4575	Oct. 6, 1891	6	16	4575	Oct. 6, 1891	12	82	102	180	62	120	33.5	15.2	70	74

## PORTLAND CEMENT.

The following brand and samples of Portland cement have been tested:

Brand.	Lots.	Samples.	Brand.	Lots.	Samples.
Germania.....	16	93	Offenbacher.....	1	1
Stettin Anchor.....	10	80	Johnson.....	1	1
Porta.....	10	92	Alsen.....	1	1
Mannheimer.....	2	11	Eagle.....	1	1
Atlas.....	2	2	Scales.....	1	1
Dyckerhoff.....	1	1			
Hannover.....	1	1	Total.....	47	285

Representative tests of the above cements are given in the following table:

## Representative tests of Portland cements.

Brand.	Serial No.	Date.	Residue on sieve.		Initial set.	Tensile strength.				Water in mortar.		Temperature.	
			50.	100.		Neat.			Three parts quartz.	Water.	Quartz.	Water.	Air.
						1 day.	7 days.	28 days.					
			Per ct.	Per ct.	H. m.	344	480	618	150	232	Per ct.	° F.	° F.
Germania:													
Best .....	4340	Aug. 8, 1891	0.0	5.0	1 28	344	480	618	150	232	22.0	76	84
Poorest .....	4520	Sept. 19, 1891	0.0	9.0	0 48	218	360	520	106	146	23.0	74	82
Average .....	4255	July 25, 1891	0.0	6.0	2 50	278	482	586	146	182	23.0	77	86
Stettin Anchor .....	4470	Sept. 9, 1891	1.0	15.0	3 00	180	378	620	114	162	23.0	70	70
Porta. ....	4653	Nov. 11, 1891	Trace	7.5	1 45	382	660	700	176	222	23.0	70	68
Mannheimer .....	4545	Sept. 25, 1891	Trace	5.5	2 40	398	580	662	180	246	22.8	78	82
Dyckerhoff .....	4672	Dec. 7, 1891	Trace	7.0	3 48	128	598	716	124	236	22.0	70	72
Hannovel .....	5002	Apr. 14, 1892	1.0	9.0	0 14	72	518	714	150	200	20.0	72	76
Offenbacher .....	5095	May 25, 1892	Trace	7.0	5 40	186	398	650	86	170	20.0	68	74
Alsen .....	5168	June 21, 1892	Trace	9.0	1 48	406	526	602	158	236	26.0	84	92
Belgian Eagle .....	5194	June 25, 1892	3.0	18.0	2 25	382	586	680	132	192	20.0	82	84
Scales .....	5195	June 25, 1892	1.0	12.0	0 8	240	722	784	126	280	20.1	82	86
Johnson .....	5096	May 26, 1892	7.0	27.0	1 21	286	420	454	72	100	21.0	68	74
Atlas .....	5129	June 6, 1892	Trace	9.0	3 35	562	842	1020	204	324	19.1	76	80



## INVESTIGATION OF METHODS OF TESTING AND PERSONAL EQUATION.

Considerable time has been devoted to the consideration of the conditions affecting the results of tests of hydraulic cements, both neat and with sand, our attention having been attracted thereto by lack of agreement in results of tests of the same cement by different individuals in the same laboratory. Large batches of sand mortar, two of standard quartz to one of cement, were made up in sufficient quantity for three persons to make, each, fifteen briquettes, using both Round Top and Antietam cement as typical of the lime and magnesian varieties. The mortar being made accurately by weight, and by one person alone, all the conditions connected therewith, until it was put into the mold, were entirely uniform. The different lots of briquettes, made up by the three individuals, were removed from the molds at the same time and subsequently treated exactly alike.

Workman No. 1 was quite unskilled in making briquettes. He took no greater pains than to fill the mold and leave no air bubbles. Workman No. 2 had had considerable experience, but no extended practice, but he made an endeavor to follow the instructions of workman No. 3, who has for years been engaged in making briquettes, and who is noted for the regularity of his results. No. 1 filled fifteen molds from the mortar supplied him, and had considerable left over. No. 2 crowded the same amount into fourteen molds, while the skilled workman, No. 3, just filled fifteen molds, with no mortar as surplus.

The results of tests for tensile strength were as follows:

*Round Top cement.*

[Standard quartz mortar—Tests made by different operators—Briquettes preserved in air 1 day, in water remainder of time.]

	No. 1.	No. 2.	No. 3.
Air 1 day, water 6 days .....	90 56 70	130 120 132	140 138 136
28 days .....	100 134 132	200 186 202	256 258 252
3 months .....	180 160 186	308 320 318	342 340 336
6 months .....	270 256 248	364 306 365	390 364 364
1 year .....	320 360 340	362 364 364	420 396 418

Water in mortar, 15 per cent.

*Antietam cement.*

[Standard quartz mortar.—Tests made by different operators—Briquettes preserved in air 1 day, remainder of time in water.]

	No. 1.	No. 2.	No. 3.
Air 1 day, water 6 days .....	48 34 58	98 86 88	64 58 52
28 days .....	150 136 130	190 194 182	186 190 198
3 months .....	154 156 132	196 190 218	220 192 200
6 months .....	146 150 154	200 220 222	218 220 226
1 year .....	156 140 142	220 210 226	232 228 250

Water in mortar, 14.3 per cent.

It is apparent that the highest and most regular results were obtained by the most skillful and experienced laborer, especially in the case of the lime cement—Round Top—although No. 2 used apparently more force in compressing the mortar than No. 3. The low results obtained by No. 1 are plainly due to lack of compaction of the mortar in the briquette. In the case of the magnesian cement—Antietam—there is not as great a difference between Nos. 2 and 3, but the briquettes of No. 1 fail to increase in strength after twenty-eight days. Some previous experiments on the preservation of quartz briquettes of lime and magnesian cements show that the latter are less affected by change of condition than those of lime cements. I quote the results of tests of quartz briquettes of the two cements at 24 hours when preserved under different conditions:

	Cumberland.			Antietam.		
Taken out of mold as soon as made and covered at once with damp cloth .	30	36	43	22	22	24
Covered at initial set with damp cloth .....	52	56	56	30	30	38
Covered at hard set.....	66	66	72	30	30	32
Covered at very hard set .....	76	74	70	28	30	30
Left in mold and covered at once.....	72	68	76	24	26	28
Taken from mold when hard set and covered.....	78	68	74	30	30	34
Not covered at all .....				28	30	32

It is therefore apparent that tests of some cements are more affected by variation in conditions than others, and that as a whole, with unskilled labor, the results may become very deceptive.

How far hammering the mortar into the mold would improve upon the results was sought to be determined by the following experiments by workmen Nos. 1 and 3.

*Antietam cement.*

[Quartz mortar. Tests of briquettes hammered by different operators. Briquettes preserved in air one day, remainder of time in water.]

	No. 1.	No. 3.		No. 1.	No. 3.
Water, 7 days .....	54	76	Water, 28 days .....	206	186
	58	80		200	198
	54	84		196	193

Water in mortar, 14.3 per cent.

These results show that hammering the mortar without some means for regularity of action would not prove a remedy.

In Germany this subject has been very carefully investigated and briquettes are now made there with a specially devised hammer machine, experts in charge of testing there having found the same discrepancies between different workmen as we have. The Böhme hammer apparatus is arranged to deliver a certain number of blows of a certain weight upon the mortars in the mold, thus producing briquettes which are always made under the same conditions. In this way comparable results are obtained. German tests are almost exclusively of Portland cements. For comparison, therefore, briquettes of Portland cement were made in the same way as with natural cements by the same workmen as above and the results obtained were as follows:

*Portland cement.*

[Quartz mortar, 1 of cement 3 of quartz. Tests by different operators. Briquettes preserved in air one day, remainder of time in water.]

	No. 1.	No. 2.	No. 3.
Air 1 day, water 6 days .....	176	206	220
	170	204	222
	174	210	224
27 days .....	200	268	280
	198	274	290
	202	276	294
3 months .....	240	320	326
	262	280	288
	236	280	308
6 months .....	238	289	330
	202	300	318
	236	302	329

Water in mortar, 12 per cent.

Operator No. 1 fell behind in his results as before and Nos. 2 and 3 showed about the same differences as with natural cements. I believe, however, that the latter cements are somewhat more susceptible to variations under such circumstances than the Portland. Among other conditions which are of great importance in modifying the results of cement tests the temperatures of the air at the time of mixing and of the water used in the mortar are most noteworthy. As in the summer months the air and water are often both above 80° F. the results of tests made in these months will often exceed those of the winter months by a large amount, at the short interval of seven days. Later tests are not affected so much or at all since in course of time the briquettes made in cool weather eventually, although at a slower rate, acquire their entire strength.

Of some other conditions I have made mention in previous reports. The time of working the mortar should be long enough to produce a certain appearance, which can not well be described but seems to be a condition where it appears quite dry and sandy, but on patting with a smooth trowel allows a slight dampness to show on the surface. Too little working to produce this effect is an error, while too much working decreases the strength of the mortar when broken at short intervals of time after making the briquettes. The amount of water in use in mortar is also one of the chief elements affecting the strength of briquettes. This factor has been carefully studied as well in its laboratory relations as in its effect upon mortar on the works, at the same time examining the influence which different kinds of sands produce in connection therewith. This investigation was induced by the fact that certain natural cements which gave extraordinarily high results when tested in the laboratory with standard quartz failed to give the return anticipated from these results in the street.

The following explains the scope of our work:

*Relation of the results of laboratory tests to those obtained on the work.*

Laboratory tests of an average Round Top cement, 1 of cement to 2 of quartz, at from 1 to 7 days.

In air, moist.	In water.	1.	2.	3.	4.	5.
Till set .....	1 day .....	58	60	60	62	54
1 day .....	Not immersed .....	70	72	68	70	68
Do. ....	1 day .....	76	80	78	82	80
Do. ....	2 days .....	86	88	84	90	86
Do. ....	3 days .....	98	90	100	94	100
Do. ....	4 days .....	102	106	100	80	100
Do. ....	5 days .....	128	130	112	128	120
Do. ....	6 days .....	140	158	150	150	156

Per cent of water in mortar, 15; temperature of water, 76° F.; temperature of air, 78° F.



*Relation of the results of laboratory tests to those obtained on the work—Continued.*

Tests of the same Round Top Cement with varying percentages water. Preserved in air or in water.

	Standard quartz, 2 parts.				River sand, 2 parts.			
	1.	2.	3.	4.	1.	2.	3.	4.
Water.....per cent.	16	18	20	22	16	18	20	22
Preserved in air.....	120	78	62	42	58	40	36	20
	120	80	52	40	58	38	26	22
	120	78	68	36	60	38	22	20
Preserved in water.....	100	80	54	36	46	28	20	16
	110	76	50	40	40	30	18	12
	100	82	52	38	38	30	22	14

Tests of another sample of Round Top natural cement, with standard quartz and with sand in use on sewer contracts, with varying proportions of water.

#### PRESERVED IN WATER.

Water.....per cent.	Standard quartz.						Sand.			
	14.5						16.5			
1 day.....	42	40	38	36	40	6	6	4	4	6
2 days.....	54	56	54	48	54	8	10	10	8	7
3 days.....	66	64	60	58	56	14	12	15	14	14
4 days.....	68	66	70	70	68	28	30	30	32	26
5 days.....	78	60	76	80	78	34	36	32	36	38
6 days.....	132	132	130	102	128	38	30	36	38	38
7 days.....	130	134	132	126	134	36	38	38	36	34
							38	42	40	44
										18 18 20 21 16

#### PRESERVED IN MOIST AIR.

Water.....per cent.	14.5						24				16.5				From work.
1 day.....	40	40	38	40			12	12	8	10	14	16	16	12	2 0 2 4 0
2 days.....	70	74	80	76			20	20	18	20	28	30	30	28	12 10 12 8 10
3 days.....	86	80	84	88			30	30	32	30	32	32	30	34	20 18 14 21 16
4 days.....	120	122	120	120			40	38	40	36	50	52	50	46	22 2 18 20 12
5 days.....	122	120	124	123			40	46	44	40	48	48	46	40	20 22 24 22 26
6 days.....	130	130	134	138			60	60	48	60	68	72	70	76	26 24 26 26 28
7 days.....	136	128	136	138			64	62	58	60	70	68	76	74	28 26 29 28 27

Tests of Round Top and Shepherdstown cements, as used in mortar for concrete base of asphalt pavements, T street and Massachusetts avenue, September 2, 1891.

[In air 1 day.]

	Round Top.			Shepherdstown.		
Lot 1, in water 6 days.....	18	16	16	12	14	10
27 days.....	58	46	50	52	52	48
Lot 2, in water 6 days.....	18	16	17	12	10	10
27 days.....	40	38	42	36	30	46
Lot 3, in water 6 days.....	18	20	20	10	10	13
27 days.....	54	52	50	42	44	30
Lot 4, in water 6 days.....	21	20	20	14	14	13
27 days.....	30	32	28	48	46	46

[Cements in laboratory with quartz.]

In water 6 days.....	148	146	150	58	60	56
27 days.....	198	200	202	116	114	120

It is apparent from the preceding results that the tensile strength of mortars as used upon actual work is very much smaller than the results obtained in the laboratory would lead us to expect. This is due very largely to the greater amount of water necessarily used in the preparation of mortar for concrete in a suitable condition for ramming and also to the character of the sand in use as compared with the standard quartz employed in testing. With briquettes preserved in moist air the results obtained from mortar from the works were only 20 per cent as great as that of the laboratory tests with standard quartz. This difference would diminish after the lapse of time, but in work where centers are to be drawn the results at short intervals after use are of special importance.

A comparison of the few results with magnesian cements, as used on the work, with laboratory results of the same cement shows that this class of cements does not show relatively so great a falling off in strength under these circumstances as the cements free from magnesia, and eventually, as we know well, they are quite equal if not superior to the lime cements. It is apparent, therefore, that we must not be deceived by laboratory tests in general, and especially in comparing cements of the two classes which have been spoken of. That a lime cement gives twice as much tensile strength as a magnesian one when tested with standard quartz at seven days is no reason that it is twice as strong, since on the work they would be found to give about the same results.

Cold weather, as is known, has a decidedly injurious effect upon the strength of cements. With a view to determining what the relative effect of exposure to alternate freezing and thawing weather would be upon various cements, briquettes were made in December, and after setting were exposed outside the building for a long period. The results were as follows:

*Round Top cement.*

[Mortar as used on work at First street and Indiana avenue. Cold test briquettes preserved in air and water.]

	Preserved in air.	Preserved in water.		Preserved in air.	Preserved in water.
7 days .....	20	(*)	28 days .....	40	(*)
	20	(*)		54	(*)
	20	(*)		40	(*)

\* Disintegrated.

*Round Top cement.*

[Mortar made in laboratory.]

Age when broken.	Neat, preserved in—		2 parts quartz, preserved in—		2 parts sand, pre- served in—	
	Air.	Water.	Air.	Water.	Air.	Water.
1 day .....	56	48				
	60	52				
	60	54				
7 days .....			112	60	64	(*)
			100	58	66	(*)
			98	62	60	(*)
28 days .....	290	(*)	120	(*)	80	(*)
	292	(*)	126	(*)	96	(*)
	296	(*)	120	(*)	84	(*)
3 months .....	120	(*)	164	(*)	100	(*)
	124	(*)	164	(*)	120	(*)
	126	(*)	164	(*)	118	(*)
6 months .....	102	(*)	278	(*)	164	(*)
	108	(*)	270	(*)	170	(*)
	108	(*)	280	(*)	172	(*)
Water in mortar.....per cent..	32		15		15	

\* Disintegrated.

Antietam cement.

[Mortar made in laboratory.]

Age when broken.	Neat, preserved in—		2 parts quartz, preserved in—		2 parts sand, preserved in—	
	Air.	Water.	Air.	Water.	Air.	Water.
1 day .....	60	46				
	72	48				
	68	43				
7 days .....			58	42	60	(*)
			58	42	56	(*)
			60	40	58	(*)
28 days .....	302	94	130	(*)	98	(*)
	296	80	126	(*)	96	(*)
	298	96	130	(*)	98	(*)
3 months .....	130	(*)	180	(*)	106	(*)
	128	(*)	176	(*)	100	(*)
	136	(*)	180	(*)	104	(*)
6 months .....	128	(*)	206	(*)	152	(*)
	136	(*)	196	(*)	150	(*)
	138	(*)	200	(*)	150	(*)
Water in mortar .....per cent..	32		15		15	

\* Disintegrated.

Mannheimer Portland.

[Mortar made in laboratory.]

Age when broken.	Neat, preserved in—		2 parts quartz, preserved in—		2 parts sand, preserved in—	
	Air.	Water.	Air.	Water.	Air.	Water.
1 day .....	376	368				
	370	368				
	374	372				
7 days .....	364	432	130	152	112	100
	366	428	128	146	124	120
	362	436	136	148	126	116
days .....	386	624	162	230	160	200
	398	626	162	196	154	198
	394	624	160	224	162	196
months.....	240	480	380	208	360	180
	238	480	386	220	360	188
	236	492	400	228	362	186
6 months.....	186	502	360	260	364	162
	186	496	382	264	370	164
	174	494	384	262	368	160
Water in mortar .....per cent..	22		11		11	

Temperature extremes and precipitation for thirty-six days after first exposure.

			Maxi- mum.	Mini- mum.	Rain.				Maxi- mum.	Mini- mum.	Rain.
1891.			F°	F°	Inches.	1892.			F°	F°	Inches.
Dec. 12.....			52	35		1.....			52	30	
13.....			60	29		2.....			58	36	.74
14.....			60	30	Trace.	3.....			28	20	Trace.
15.....			64	38	Trace.	4.....			20	19	.08
16.....			57	44	.10	5.....			37	21	
17.....			35	27		6.....			35	29	.85
18.....			35	15		7.....			37	23	
19.....			47	17		8.....			38	20	
20.....			46	28		9.....			35	27	
21.....			50	27		10.....			30	24	
22.....			54	36	Trace.	11.....			31	24	.04
23.....			67	52	.01	12.....			37	30	.59
24.....			66	58	.97	13.....			43	35	.74
25.....			52	48		14.....			62	40	.56
26.....			60	48	.10	15.....			32	27	.87
27.....			38	32		16.....			28	14	
28.....			44	23							
29.....			54	34	.31						
30.....			47	37	.03						
31.....			45	32							



The two natural cements behaved in very much the same way, the magnesian brand holding out a little longer than the lime cement when exposed in the neat form in water. All the briquettes exposed in water, and which were frozen several times, disintegrated eventually, and the neat briquettes in air began to deteriorate after a month. The quartz and sand briquettes preserved in air, although exposed to the rain, have not deteriorated at six months. These cements in the form of sand mortar can be considered reliable after they are once hard set if they are not frozen while wet.

The Portland cement showed a similar deterioration in the form of neat briquettes, but no briquettes of this cement, either neat or with quartz or sand, disintegrated as the natural cements. It seems to be much more suitable for use in cold weather under trying conditions than natural cements.

In addition to the preceding experiments an extended series has been started with the object of determining the relative value in mortars of the many varieties of river and bank sand found in this neighborhood and also the effect of small admixtures of loam and clay to the mortar. These experiments have been based upon the use and different effect produced upon a German and an English Portland and a magnesian and a lime natural cement.

The results will be given in my next report.

#### ASPHALT CONCRETE PAVEMENTS.

Since my last report our knowledge has been very largely increased in regard to the character of the materials and the methods pertaining to the construction of asphalt concrete surfaces for pavements.

In 1889 the cargo of the *Teneriffe*, which was discharged at the Barber Asphalt Paving Company's yard in this city, first brought to our attention the very inferior quality of at least some of the Trinidad deposits as compared with others. As far as our investigations were able to go at that time it seemed that the best pitch was obtained from what is known as the Pitch Lake, and that the inferior material came from excavations outside this deposit and between it and the sea, this being known from its source as land pitch.

At that time, after considerable investigation and argument, it was conclusively proved that the *Teneriffe* cargo was very inferior material and unsuitable for use as pavements. This decision, however, spurred those dealing in land pitch to the production of a better article, and with careful selection and trimming this was accomplished. The question, however, remained as to whether any of the land pitch could be found which was equal to that from the lake. In November of last year a favorable opportunity occurred for investigating this important question at the very source of supply, and by your orders I went to Trinidad. The information which I was able to obtain there I have embodied in a report to you, which I here include in part as properly part of the work of this office for the past year.

REPORT ON TRINIDAD PITCH.

OFFICE OF THE INSPECTOR OF ASPHALT AND CEMENTS,  
ENGINEER DEPARTMENT, DISTRICT OF COLUMBIA,  
Washington, D. C., July 1, 1892.

SIR: I have the honor to submit the following report of the results of an investigation of the pitch deposits of the island of Trinidad, their occurrence, origin, character, and commercial development, together with some facts in regard to their application to pavements in the past and the possibilities for the future, undertaken in compliance with an order of the honorable Board of Commissioners of the District of Columbia, dated October 27, 1891.

The report has been delayed until the present time awaiting the completion of the analyses of the numerous specimens which were collected and certain information in regard to the present position of the land pitch industry, which the Department of State has obtained, at my request, through its consul at Trinidad.

Very respectfully,

CLIFFORD RICHARDSON,  
*Chemist and Inspector of Asphalt and Cements.*

Capt. W. T. ROSSELL,  
*Corps of Engineers, U. S. Army, Engineer Commissioner, D. C.*

TRINIDAD PITCH: ITS OCCURRENCE, ORIGIN, NATURE, AND COMMERCIAL APPLICATION FOR PAVING. BY CLIFFORD RICHARDSON, INSPECTOR OF ASPHALT AND CEMENTS, AND CHEMIST OF THE ENGINEER DEPARTMENT, DISTRICT OF COLUMBIA.

TRINIDAD.

The island of Trinidad lies off the north coast of South America, between 10° and 11° of latitude and 61° and 62° of longitude. It is bounded on the north by the Caribbean Sea, on the east by the Atlantic, on the south by a narrow channel, into which flow the waters of the northern and most westerly mouths of the Orinoco, and on the west by the Gulf of Paria, the two latter bodies of water separating it from the mainland of Venezuela.

It is of an irregular rectangular shape, with promontories extending from its southwestern and northwestern corners which are several miles in length, between which and the mainland are the narrow straits known as the Dragons and Serpents mouths. These promontories form a large portion of the northern and southern boundaries of the shallow rectangular Gulf of Paria, whose outlets to the ocean are through the Dragons and Serpents mouths. The island has an average length of 48 miles and breadth of 36, containing about 1,750 square miles and being about one-fifth the area of the State of Vermont. It is, as a whole, a flat country, with a high and striking mountain chain descending abruptly into the sea along its northern shore and with low central and southern ranges of less importance. Its coasts are naturally abrupt on the north, and consist of low bluffs on the south and are flat on the east and west. The only harbors are on the western coast.

The shape and structure of the long promontories which have been mentioned reveal the fact that Trinidad is, structurally, intimately connected with the mainland. This is proved by the geology and fauna of the island, the latter corresponding closely to that of the mainland and the geological structure being a continuation of that of the continent.

Its climate is entirely tropical and somewhat different from that of the remaining Antilles in this respect.

Trinidad was discovered by Columbus on his third voyage in 1498 and taken possession of in the name of Spain, which colonized it about ninety years after. In 1797 it was taken by Great Britain, and has remained since then one of her most important West Indian colonies, and the second in size.

GEOLOGY OF THE ISLAND.

The island of Trinidad, while not directly connected with the chain of islands of volcanic origin known as the Windward or Caribbean Islands, is directly on the great line of volcanic disturbances running from these to the continent of South America and its volcanic regions. Many of the Windward Islands are still possessed of active

vents, so that Trinidad may be looked upon, with its thermal springs and pitch deposits, as being situated at the lowest point between the mountainous volcanic chains of the West Indies and those of South America.

Its geology has been studied to any extent only by Wall and Sawkins, who in 1860 published under government auspices a "Report on the Geology of Trinidad, etc.," in which they give an elaborate account of the structural geology of the island and its pitch deposits. More than two-thirds of the surface is of tertiary or recent origin, including the entire southern portion, where the pitch deposits are located. The formations consist of clay, loose sand, shales, limestones, calcareous sandstones, indurated clays, porcelainites of brilliant colors, with pitch deposits and lignite here and there. The beds have been considerably disturbed and have at times a large dip. In a series of loose sand, clays, and shales lies the Pitch Lake, with no calcareous formation near at hand.

Without lengthening this report with further references to the geological structure of the island, I would refer the reader desirous of examining the subject in greater detail to the original work of Wall and Sawkins, especially that portion denoted Appendix C.

#### THE PITCH DEPOSITS.

While there are deposits of pitch scattered all over the island, the only ones of commercial importance are those situated on La Brea Point, in the wards of La Brea and Guapo, in the county of St. Patrick, on the western shore of the island. They are about 28 miles in an air line from Port of Spain, the seat of government, the chief harbor and only port of entrance, and lie on the north shore of the southwestern peninsula, the point upon which they are situated being apparently preserved from destruction by the sea, which is elsewhere rapidly wearing away the coast, by the bituminous deposits which exist along the shore and even some distance from it, and which from their toughness resist the action of the waves better than the soft rocks of this region. The pitch deposits are found scattered over the point, but can be divided conveniently into two classes, according to their source.

The main deposit is a body of pitch known as the Pitch Lake, situated at the highest part of the point.

Between this and the sea, and more especially toward La Brea, are other deposits, covered more or less and mixed with soil.

The pitch from these sources is classed as "lake pitch" and "land pitch."

#### THE PITCH LAKE.

By far the largest amount of pitch is found apparently in the Pitch Lake, a nearly circular area of 114.67 acres, 138 feet above sea level. From the lake the ground falls away on all sides, except, perhaps, a slight ridge to the east and southeast. In fact it seems plain that this deposit lies in the crater of a large mud volcano which has filled up with pitch.

The crater is a flat, gently sloping mound, wooded over a large portion, open savanna elsewhere, and toward the north merely grassed over.

On the west its slopes toward the sea are gentle for some distance, but then more abrupt. On the north, toward La Brea Point, the reverse is the case, and a ravine runs, with a small stream, quite to the village, this slope being very scantily covered by a growth of coarse grass near the lake, becoming more bushy farther on, while the other slopes are well wooded, with magnificent palms near the lake, forming a beautiful band or border around it, within which is a grassy zone of about 100 to 200 feet or more in width.

As to the depth of the pitch deposits and of the crater many conjectures have been made, but none of them seem founded upon any basis of fact. At some little distance from the edges pits have been sunk as deep as 12 feet, in which pitch has welled up rapidly from the bottom, showing that there must be some feet more of the substance underneath. It is impossible, or has been impracticable, to sink deeper pits on account of the rapidity with which the pitch flows in in all directions, and attempts to bore were equally unsuccessful in 1889.

In past times the pitch very probably continued to collect until it overflowed the rim of the crater in many directions, and thus perhaps became the source of some of the land-pitch deposits now found all the way from the lake to the sea.

At first sight of the Pitch Lake one sees a flat, dark expanse of pitch, dotted here and there with large clumps of shrubs and grasses, surrounded, except to the north, with a wall of palms.

On closer inspection it appears that the central portion of the surface is divided up by a network of pools, looking from a distance like shallow puddles of rainwater. On walking over the lake, which is entirely possible, it will be seen that, while these pools are accumulations of rainwater, they are deeper than would be expected, in



many cases several feet, and, with their irregular shape, depend upon the fact that the pitch is not one homogeneous mass, but consists of spherical, polygonal, or mushroom-like masses, which at the point where several come together form the spaces, which are filled with water.

These masses of pitch, slightly convex on the surface, are one of the most distinctive features of the lake surface. They range from 30 to 200 feet in diameter, with a round, rolling edge, and coalesce more or less, depending upon the hardness of the pitch of which they are composed, there being a considerable difference in this respect between the edges and center of the lake. Owing to the softer nature in the center there are there fewer pools and shallower ones.

One of the most characteristic mushroom-like masses, situated near the central part of the lake, is an almost perfect circle of 66 feet in diameter. It has a convexity of 1 foot 6½ inches, and a very regular and typical formation, being neither too soft nor too hard to retain all the evidences of change of shape. It is the summit of one of the domes shown on the profile on the accompanying map, which reveals the wavy nature of the lake level caused by the dome-like masses and the depressed pools between them.

There have been several attempts made to explain the existence of these interstitial spaces without entire satisfaction, but it is plain to any observer that each large mass has a motion of its own by which the lower portions are brought up and roll out from the center to the edges.

This motion, with the aid of the water, preserves the circular or polygonal shape of each mass and thus permits the continued existence of the star-shaped pools. The rolling motion is evidenced by the form of the edges and by sticks and other foreign substances which rise out of the pitch and assume various angles as the mass rolls toward the edge. The sticks often carry a cap of pitch which they have torn away from the surface, but they never have any adherent to the sides, nor will pitch adhere to wet substances. Gas bubbles or cavities which are found all through the lake pitch as they reach the surface are drawn out, with the movement of the mass toward the circumference, into fine lines, and the whole surface becomes covered with rings and wrinkles showing the concentric motion that is going on. This movement or rolling motion in the pitch is explained with greatest probability as due to alternate expansion and contraction of the viscous mass caused by changes of temperature between day and night, during the day the surface of the pitch reaching a temperature of 140° F., and at night falling to 80 or 90°, or lower. It may be also influenced by the continued evolution of gas in the mass.

The rainfall of Trinidad is of tropical abundance, so that the joints are kept full at all seasons, and the water prevents the coalescing of the edges, although not that of change of shape, in the mass.

Notwithstanding the motion in the mass the pitch of nearly the entire lake is hard enough to walk over easily, and with the pick can be flaked out in semiconchoidal masses of 50 to 70 pounds weight. A person standing for any length of time in one place would sink a slight distance, and a hole several feet deep will gradually fill up in a few days and disappear. This takes place by a pressure in all directions, upward as well as lateral, and is well illustrated in an experiment which was made at a point about 300 feet from the edge of the lake.

A pit was sunk in the lake about 300 yards from Station 25 on Monday, November 16, 11 a. m. Its changes in shape and rapid filling appear from the following measurements:

	November 16.		November 17—	November 18—
	11 a. m.	3 p. m.	10:30.	12 m.
Top:				
East to west.....	<i>Ft. In.</i> 6 3	<i>Ft. In.</i> 6 0	<i>Ft. In.</i> 5 7	<i>Inches.</i> 12
North to south.....	5 3	5 2	5 0	.....
Bottom:				
East to west.....	4 0	3 6	3 0	.....
North to south.....	4 0	3 5	2 9	.....
Depth.....	3 to 3 3	3 to 2 8	1 7	8
Surface rises.....		11	4	.....

The changes show that the pressure was in every direction, upward as well as lateral, and that the form the pit assumed was what we should expect as the resultant of forces acting in this manner in a viscous mass. In fact, Trinidad pitch, whether in the lake or when taken elsewhere, illustrates most perfectly all the phenomena of glacial flow, and when stored in heaps soon becomes a solid mass although brittle enough to be flaked with a pick at any time. It may be made a convenient means of illustrating many well-known geological facts.

Near the center of the lake there are in some of the joints patches of softer pitch, some of it so soft that a boy sinks to his knees in twenty seconds. It is not of different temperature from the harder pitch, in fact is a little cooler, owing to its surroundings, but it is of a brilliant, glossy black, like gas tar, and is filled with and continually emits gas. This gas near the edges of the mass is from time to time evolved with considerable violence and burns readily. It is largely hydrogen sulphide and carbon dioxide. Deposits of sulphur are seen about the rents, and the water is of a strong mineral character and so mixed with the pitch that masses of the latter can be picked up and kneaded in the hands without its adhering to them.

At the soft spot the evolution of gas is so rapid as to be evident even to the ordinary observer, but it undoubtedly takes place to a smaller degree, at all times, all over the lake. As will be seen in the photographs accompanying this report, the large conchoidal flakes of pitch picked out for shipping reveal the fact that all the lake pitch is honeycombed with gas cavities looking much like those in a Swiss cheese.

If the soft pitch is collected and in the laboratory allowed to stand in a closed vessel in a warm place it will continue to evolve gas which can be collected; in fact, samples in sealed tin cans all exploded while coming from Trinidad, showing that a chemical reaction of considerable energy was going on. This reaction, without doubt, continues for a long time, as the pitch grows harder, and in conjunction with the surrounding physical conditions may somewhat influence the movement of the pitch in the mushroom-like masses.

Although the soft pitch is said by E. L. Joseph, in a history of Trinidad published in 1837, to occupy a space of  $3\frac{1}{2}$  acres, it does not seem now to cover more than a few irregular joints amounting to a few hundred square yards.

A pole penetrates not more than 6 feet before striking hard pitch. The soft spot is in fact caused by the filling up of some of the old joints with soft pitch instead of water and it is chronicled that where an evolution of soft pitch is found beginning in a watery joint it rises to the surface in the shape of a mushroom.

In the neighborhood of the very soft pitch are found joints filled with semi-soft material and others with pitch of different degrees of hardness, so that it is very apparent that the soft stuff gradually changes and becomes like the remainder of the lake.

#### THE LEVEL OF THE LAKE.

In 1855 Mr. N. S. Manross described the Pitch Lake in the American Journal of Science. Of the pitch at the edge of the lake, where the road starts for La Brea, he says: "Here the pitch is bare or but slightly covered with grass. Its appearance is not that of a sudden simultaneous overflow in a single smooth stream, but that of a great number of streams each but a few yards or rods in breadth." It is evident from this description that there must have been an actual overflow from the lake or crater at that time. To-day there is nothing of that sort to be seen, and the pitch outside the lake is well grassed over. This is undoubtedly due to the very large amount of pitch removed from the lake in the last twenty years, and is confirmed by the fact that on the east and west sides of the lake are well-defined terraces of hard pitch, showing the old lake margins.

To determine what this change has amounted to, and to depict the general features of the surface of the lake, a line of levels was run from one bank to the other on a course N.  $11^{\circ}$  W. These levels have been plotted on the accompanying map, with the present level of the lake, or rather road, at the south side as datum. The stations made gave the following readings:

Terrace	2.31	Station	14	.52
Datum, station 1	0.0		15	.44
Station 2	.60		16	.94
3	.57		17	.79
4	.46		18	.80
5	.46		19	.76
6	.71		20	.72
7	1.07		21	.80
8	.74		22	1.08
9	.82		23	1.10
10	1.27		24	1.14
11	.64		25	1.16
12	1.17	Terrace		1.80
13	.64			

It appears that the level of the lake has fallen in the last few years about 2 feet, as evidenced by the terrace on the southern margin, or, if this terrace is deceptive, as much as two-thirds of a foot, as shown by the terrace on the northern margin. I am



inclined to believe that the northern terrace has been somewhat denuded and that the southern one is too high and that the lake has perhaps fallen in level a foot or a little more.

The surface of the lake appears from the plotted levels to be decidedly undulatory, especially in the center, which is at the same time higher than the southern side and quite as high as the northern, except in the immediate neighborhood of the soft spot. Had the levels been run from top to top of the mushroom-like masses instead of at regular intervals, which at times fell near the joints, probably some of the lower depressions would have been avoided.

#### THE LAND-PITCH DEPOSITS.

La Brea Point consists of a mass of hardened pitch deposits and reefs extending some distance into the gulf and along the shore in both directions. The deposits are found in greater or less abundance at all points between the shore and the lake, and directly along the line of the road, over an area estimated at a thousand acres or more. Two feet or more of soil cover the deposit at some distance from the lake, but near it the thickness diminishes and at places bare pitch is found.

On the point the pitch of the reefs is hard and resonant and has no cementitious value. The nearer the deposits are to the lake, however, the more viscous they become.

The incline from the lake to the gulf, a distance of three-quarters of a mile, is at first about one in twenty-five, gradually diminishing to the shore. Near the edge of the lake there is now a rank growth of grass, followed by shrubs and trees after passing the forks of the road. In the village cultivated land is found, and large pits filled with stagnant water, from which pitch has been excavated. Except very near the lake, the pitch excavated from the land deposits is of a very different appearance from that taken from the lake, and it is also of several kinds.

The conchoidal masses removed from the lake, as I have said, contain large gas cavities, and in appearance and somewhat in consistency resemble a black Swiss cheese. On this account the land pitch most nearly resembling this is known as "cheese pitch." It occurs in various degrees of porosity and life. In addition, land pitch is found in solid masses scarcely to be distinguished from refined asphalt, and this is known as "iron pitch." Pitch, known as "cokey pitch," from having been coked by the burning of the brush over its surface, and the chocolate and friable alteration products which have originated from atmospheric action and disintegration, are also recognized.

I am informed that in excavating for land pitch there is frequently found at that depth where the deposit seems to be about to vanish a dirty, black, sticky clay.

In the same hole, therefore, it seems to be possible for all the different kinds of land pitch to be associated.

As can be seen in the accompanying photographs and in specimens which have been collected, the land pitch has lost much of its viscosity, and does not become an easy yielding mass under the summer sun. It occurs, as described by Mr. Bowen, who was present at a time of more active excavation than I, "in all sorts of peculiar shapes, some as irregular columns 2 or 3 feet thick and 3 to 5 feet high, others as long irregular mounds; some as beds with surface covered with irregular depressions and cavities, and all stiff and unyielding. \* \* \*"

"Some of these pits make it appear as if earth, etc., constituted full three-quarters of the original mass before mining was done. In a few places in the village it was noticed that the half-hidden asphalt was on the surface of the ground, and that its edges presented the rolling character."

Mr. Bowen also says: "The origin of the asphalt and its erratic forms as seen in the village pits and of the boulder-like masses along shore is obscure."

"It seems by their peculiar forms and their detached state as if this asphalt never came from the lake by overflow, but that it oozed up out of the earth through more or less small and somewhat scattered fissures, and that by long exposure to the elements and an ancient cessation from gas evolution it has long since come to differ greatly physically, and to a considerable degree chemically, from lake asphalt."

These views agree with those of Wall and Sawkins. We should have, then, land pitch derived from an overflow from the lake and land pitch from pockets where it has either originated or been pushed up along lines of least resistance from subterranean supplies. The presence of reefs along the shore and scattered masses from miles around, which could hardly be derived from the lake, and of springs of soft bitumen some distance south of the lake and also in the sea, points also to the fact that this view of the question is correct.

The deposits in the village, however, like the detached masses along shore, seem to be of considerably greater age than any others and of correspondingly little value for cementing purposes.



## THE ASPHALT OF THE LAKE AND OF THE LAND DEPOSITS FORTY YEARS AGO.

I have quoted from a paper by N. S. Manross, published in the American Journal of Science in 1855, a copy of which is appended, in which he gives a graphic description of the lake and the overflow from it, although the technical applications of pitch were then small. His observations are of value to-day as being unbiased and being made under circumstances which time has apparently largely modified. Some of his statements which are of present interest are as follows: He says, "In no part of the ascent from the shore to the lake does the pitch appear to be covered by more than 1 or 2 feet of soil, while in most places it is entirely bare. \* \* \* In places where the surface is not protected by vegetation, it becomes so far softened by the sun as to be still making progress downward. On nearing the lake the ascent becomes steeper, amounting to perhaps 25 feet in the last 10 rods.

"Here the pitch is bare or slightly covered with grass. Its appearance is not that of a sudden simultaneous overflow in a single smooth stream, but that of a great number of streams, each but a few yards or rods in breadth. These independent streams have jostled one another strangely in their progress. Their surfaces are wrinkled and drawn out into all manner of contortions, and where the edges meet small ridges have been thrown up, and the pitch broken into fragments not unlike the scoriæ of lava currents. These fragments of pitch were on fire in several places, having been kindled by a fire which ran through the 'bush' a few weeks before."

"The direction of the principal stream from the lake is to the north."

Referring to the pitch nearer the sea, he says: "In some places the bitumen is so mixed with earth as to lose some of its toughness as well as some shades of its pitchy hue."

From these observations it seems plain that there was practically an overflow as late as 1854 and a movement in the overflow pitch. There must have been, then, also much less growth on this overflow than at present, when it is scarcely possible to make it out even near the lake. The bush fires also account for the coke we have found. The reason of this gradual obliteration of the overflow stream and increased growth of herbage is due undoubtedly to the stoppage of the flow. Our investigations as to the relative level of the lake and crater sides, shown in the profile on the map, prove that this has been caused by the removal of so much pitch in the times since 1854 that the level of the lake is so diminished as to prevent any continuance of the overflow. In the last twenty-five years nearly 300,000 tons of pitch have been taken from the lake, and as the influx is small the lake level has naturally been much reduced and the flow toward the village stopped. In consequence herbage has grown up on the old surface and concealed the pitch more or less. The elements have then acted on it during a series of years and considerably altered its character. Even in Manross's time the older overflow appeared to him to have deteriorated.

Whether the entire supply of the point was originally from the lake can not be said, but in the light of the above observations of active movement in 1854 it appears probable that the flow may even in comparatively recent ages have extended a long distance toward the sea even while other masses of pitch may have broken out or originated in the soil at lower points independently of the lake, as suggested by Wall and Sawkins. In this case much of the land pitch must have been exposed for very long periods to natural conditions which would cause great deterioration and make it essentially inferior to the lake pitch.

Manross's description of the lake structure and its movements is extremely graphic and well worth reading. Apparently there has been little change in appearances there since his time. In his paper he remarks that "various attempts have been made to apply the inexhaustible store of bitumen afforded by the lake to some useful purpose," apparently ignoring the land deposits as being of not much value, "Mixed with sand and pebbles it is much used for pavements and ground floors of houses at Port-of-Spain."

From the preceding description it is seen that there is a great deal of land pitch scattered over La Brea Point; that it is of various forms and qualities, and that while in the best excavations as much as 10,000 tons per acre may be obtained, other diggings do not afford in quantity or quality enough pitch to be remunerative. An examination of the accompanying maps reveals the relation of the land deposits to the lake and to the gulf, and shows the ownership of various lots.

## OTHER BITUMINOUS DEPOSITS IN THE ISLAND AND VICINITY.

Some little distance south and west along the coast from the Point Boyer anchorage oil may be seen in spots upon the surface of the gulf, distinguished on a windy day by the comparative freedom from waves about it. This oil comes from submarine springs. On the shore just around the first small point below Point Boyer and about a mile west of the lake, and on a slightly elevated bank, is quite a spring of liquid bitumen which in former times was worked with no commercial success. The oil

holds much sulphur and boils largely over 600° F. Another spring exists 2 miles south of the lake, and there are more at La Fortune on Iros Bay, 8 miles farther down the coast. In this neighborhood I believe considerable money has been spent in the way of a tramway and plant for obtaining asphalt, but the whole thing has now been abandoned.

Manross, in his article in 1855, says: "From the point where the large spring of petroleum breaks out under the sea, at least 3 miles of shore to the northward, consists mainly of streams of pitch from the lake. There are a few intervals of sandstone and clay where elevations have diverted the bituminous currents. But all the most prominent headlands are those which are defended by the indurated pitch. This material has flowed out to a considerable, though as yet unknown, distance under the sea."

From either a cessation of the flow or exuberance of tropical growth these appearances are not now visible, but this may well be, as Manross's description of the overflow toward La Brea is that of a scene very different from what one now sees.

This seaward overflow may be the cause of all the asphalt along the shore but it does not seem probable.

Much of this deposit must have, like the oil spring, arisen on the spot where it lies.

Bituminous deposits are also found on the Island at Montserrat on the southeast side of the hills, at Naparima, at Oropuche, at Quemada, and Moruga, and one of liquid pitch has been discovered at Mayaro in the last few months. At Guayaguayare, on the southern coast, there is a large lagoon covered with oil or soft pitch, and known as Lagoon Bouf from the fact that it boils up and makes quite a puffing noise at times. Submarine springs of bituminous nature are found at various points on the shore and even on the eastern or ocean side.

These bituminous deposits are of three kinds, the ordinary pitch, a pure glance, and oil. None of them are of any commercial value.

On the mainland there are several well-known pitch deposits and many sales or boiling springs. On the Pedronales River, one of the outlets of the Orinoco, an English company is now at work under a concession, and at Maturin, in the State of Bermudez, in Venezuela, a company is endeavoring to develop large deposits of bitumen.

#### COLLECTING AND SHIPPING OF PITCH.

There is no harbor at La Brea, and owing to the shoal water it is impossible for vessels which seek a cargo of pitch to lie nearer than from one-quarter to one-half a mile from shore. To them the pitch is brought in lighters, holding some about 10 tons and others smaller amounts. They are mostly provided with sails and are strongly built affairs, as at times, with a heavy northwest blow in the dry season, landing and unloading are rough work.

There are two points from which the lighters convey the pitch to the vessels, La Brea Village and Point Boyer. By reference to the map the relative positions of these places can be seen and of the roads leading to them. From La Brea both land and lake pitch are shipped; from Point Boyer only lake pitch. The county road runs from the lake to La Brea and furnishes the means for the collection and hauling of all the land pitch to the shore; the other road about a mile long, has been constructed for the special purpose of hauling lake pitch to Point Boyer, and is a private affair over land owned by the Trinidad Asphalt Company. At this point as much as 7,000 tons of pitch accumulate at a time and portions of it lie there as long as three months or more, running together into a solid mass. It is hauled there in two-wheeled dump carts with mules. There are about sixty carts in use at a time, hauling from six to ten loads a day between 4 or 5 a. m. and 2 or 3 p. m. Later than that it is too hot and the pitch is too soft to work. The estate has as many as 80 animals and others are hired by contract. They are furnished to the negroes with tools to work with and so much is paid for each load delivered.

At Point Boyer there is a shed where the pitch is weighed, a load generally being a short ton. It is then dumped in a heap directly upon the shore, or upon a rude pier, largely a reef and point of hardened pitch, but partially of artificial construction. Owing to the movement of the pitch and of the sandy bottom and the high northwest wind which blows at times, it seems difficult to maintain a suitable pier.

This heap of pitch runs very soon into a solid mass, and, except the recent deliveries, must be picked to pieces again before loading into the lighters. This is done by negroes, who load small baskets carried on the head or wheelbarrows, with which they walk along a plank aboard the lighters and dump it in a heap in the middle. The quantity of pitch carried by the lighters is known, and from a tally of the number loaded on a vessel her cargo is calculated. Not until she is discharged in this country is the exact number of tons determined.

When two or more vessels are loading, lighters may serve them both from Point Boyer and La Brea, there being a pile of lake pitch also at the latter place on the



beach, which has been hauled there along the village road, and which is used as a source of supply for the epure, or refining works, which are situated there.

From La Brea Point most of the pitch for the continent is shipped, largely in a refined condition. The crude pitch for this purpose comes from the edge of the lake, at its northern and northeastern edge, about where the road leaves the lake and near to the origin of the overflow. Views of the heap after lying for three months under a summer sun and of some neighboring village land pitch are to be seen in one of the accompanying photographs, and illustrate the great difference between the two substances, the one having run into a homogenous mass, while in the other the shape of the individual pieces of pitch is still evident.

The pitch for Point Boyer comes from the northern, western, and southwestern borders of the lake, portions of convenient access to the two branches of the Point Boyer road.

All the lake pitch is taken from a belt 200 feet in width and about 200 feet from the border of the lake. Farther in upon the lake difficulties would arise preventing carts and mules from moving. The material is taken out in large conchoidal flakes, many weighing as much as 75 pounds. It has a rich, live look and is full of large gas cavities and shows some evidences of water mechanically entangled in the mass. In color, when fresh, it is a semilustrous bright black, with a brownish tinge, becoming more brown in drying. When refined, as in epure, it is a bright blue-black, even when powdered, and rapidly runs together and coalesces at summer temperatures.

Its appearance when excavated and the method of its conveyance to the sea, loading the lighters and the vessels, are well illustrated in the accompanying small kodak pictures.

#### LAND PITCH.

Land pitch is obtained by excavation and separation from the earth with which it is mingled. It has been collected all the way from the lake to the Point and varies in quality vastly. Near the lake it has only a light covering of soil, a foot or less, produced by material collected upon it by wind and rain and by the rotting of the pitch itself to a friable condition. Near the point, in certain cases, the covering becomes many feet deep and the proportion of cheese pitch much smaller, but even at the same distance there is a great variation in localities, some spots furnishing thousands of tons to the acre and others not paying for excavation. Near the lake, naturally, cheese pitch is found fairly comparable with lake pitch, but even here some iron pitch and inferior stuff occurs, an indication that a change has already begun.

Consul Pierce remarks in his report:

"The cheese pitch of the land is firmer and stiffer (the more so, it seems, the farther from the lake it is found) than the cheese pitch of the lake."

He considers—

"The difference was slight when two carts containing, one the lake, the other land pitch, were placed side by side. The lake pitch was somewhat brighter than the other and possibly of a more volatile appearance."

This from a person unacquainted with the technology of pitch is convincing of a remarkable difference, for if an entire novice can distinguish this in any way it must be actually very large.

At Hadley's Diggings, 1,200 feet northeast of the lake, just off the village road, the changes in the nature of the pitch become very apparent, at least to an expert observer. The soil covering is more than 3 feet thick. Cokey and iron pitch are found, together with the chocolate-colored oxidation products of the latter. As we move on the deposits become more and more scattered in detached masses through the soil, and the proportion of pitch to excavation generally smaller, although at the Point and in some of the village lots large masses have been found.

In these deposits it occurs in all manner of forms, as I have described. It is thrown out of the pits, collected in heaps, and then gone over by hand by gangs of negroes, who sort out the best portions and trim them with cutlasses, removing the cokey and chocolate portions and the iron pitch. It is then considered suitable to be hauled to the beach for shipment or to be stored in piles. Formerly there was much less care taken in this respect, and much very inferior stuff reached us, but since the condemnation of the *Teneriffe* cargo, and the subsequent competition between lake and land pitch, there has been a vast improvement in the land pitch exported. In addition, some of the excavations are now nearer the lake than formerly and the pitch in consequence is better than that originally taken from the lots on the Point and near the water.

The hauling and loading of the land pitch is done in much the same way as that of the lake. On the beach at La Brea, when I was there, there were seven piles, one of lake pitch belonging to the Trinidad Asphalt Company, and the others of land pitch, belonging to Turnbull, Stewart & Co., Carter, Hawley & Co., Pine, or the West Indies Asphalt Company, and to one or two men who collect and sell it to shippers for whatever they can get.



## AVAILABLE LAKE PITCH.

Practically the whole of the lake deposit is available, since any excavation is soon filled up by the natural process of other pitch flowing in. How much pitch the lake contains has been a matter of much conjecture, but as there is no knowledge of the depth of the deposit nothing definite can be told in regard to it. The deposit is plainly not inexhaustible, since the removal up to the present time of less than a million tons has produced a depression of the level of the surface of about a foot.

## AVAILABLE LAND PITCH.

Various estimates have been made of the area of land pitch available and of the amount which can be excavated. Messrs. Finlayson & Co., reliable authorities, state that at a rough calculation there may be about 12,000 acres on which more or less asphalt may be found. Of these about 11,000 belong to or are controlled by the Trinidad Asphalt Company; the Government have about 70 acres; Turnbull, Stewart & Co. control about 12 acres; the Countess of Dundonald has about 6 acres; Behi court 1 acre; Espenet 1, and there are about 5 acres in small lots. The undisputed land outside of the Crown and Trinidad Asphalt Company has been partially exhausted and would not probably yield now, they say, more than 6,000 to 8,000 tons per annum for four or five years. This estimate is under date of 10th of May, 1892, and does not seem to include the Mon Repos lot of 12 acres recently thrown open by decision of the court. I am inclined to think this must be much underestimated, but it depends largely upon the outcome of the disputes before the courts over land claimed by the land-pitch workers from the Trinidad Asphalt Company and the Crown.

Mr. Carl Boos, of the firm of J. N. Harriman & Co., informs Consul Pierce as follows:

"While it would be too speculative a matter for me to estimate the probable yield of the asphalt deposits on private land, I may say without fear of contradiction that several hundred thousand tons might easily be won from them annually for a good number of years, the more so as the deposits are being continually replenished. I know of several lots where this was proved beyond a possibility of a doubt, in one instance particularly, where a pit 32 feet deep, from which about 8,000 tons had been taken, filled up within five or six months, the ground becoming almost level with the surface. The private lands I refer to do not belong to the Crown or the Trinidad Asphalt Company."

Such conflicting opinions form no basis for any reliable estimate of the amount of land pitch available, but from my own observation and knowledge I believe that when with the reorganization of the courts of justice in Trinidad the concessionaires are given such protection as seems due them the amount exported will be largely decreased.

## LAKE AND LAND PITCH—THEIR PROXIMATE COMPOSITION.

For the purpose of studying the various deposits of pitch and making a comparison of their properties and value for paving purposes, a large collection of specimens was made from the lake and from the land deposits. These have been carefully examined since my return and the results are presented here, together with some observations upon commercial specimens collected in this country which have extended over a number of years.

On the lake, specimens were collected at each station on the line of levels, which was run from north to south across it at intervals of 100 feet, and also on an east and west line at intervals of 200 feet, and at the soft and semisoft spots.

Specimens of land pitch were taken from the several excavations which were visited, from the heaps prepared upon the beach for shipment and in a few places where the pitch is not worked commercially.

The samples were brought to this country in tin boxes, and although most of them less than a pound in weight represent, I believe, fairly the deposits from which they were taken. Some of the better class of land-pitch deposits had not been opened when I was in Trinidad, but of one or two of these I have since obtained specimens.

The results of my examination are given in the following tables:

## LAKE PITCH.

Serial No.	Locality, etc.	Character.	Soft.	Flow.	Water.	1.		2.		3.		Remarks.
						Inor- ganic.	For- organic.	Inor- ganic.	For- organic.	Bitumen.	For- organic.	Bitumen.
4706	Station 1, lake ....	Porous.....	200	210	29.97	25.67	7.78	36.66	11.11	52.23		On road at southwest corner.
4707	2, streets.....	do .....	180	200	30.13	25.55	8.21	36.57	11.75	51.68		100 feet on.
4708	3, north .....	do .....	180	200	29.76	25.79	7.29	36.72	10.38	52.90		200 feet on.
4709	4.....	do .....	180	200	28.67	26.38	7.64	37.31	10.71	52.31		300 feet on.
4710	5.....	do .....	180	200	28.34	26.20	7.41	36.56	10.34	53.10		400 feet on.
4711	6.....	do .....	190	200	28.39	26.31	7.35	36.74	10.26	53.00		500 feet on.
4712	7.....	do .....	190	200	28.37	26.35	7.21	36.79	10.06	53.15		600 feet on at water's edge, between islands.
4713	8.....	do .....	190	200	28.96	26.30	7.14	37.60	10.05	52.93		700 feet on.
4714	9.....	do .....	190	202	28.07	26.41	7.41	36.71	10.31	52.98		800 feet on.
4715	10.....	do .....	184	200	30.05	25.30	7.33	37.32	10.48	53.35		900 feet on.
4716	11.....	do .....	190	210	26.80	26.94	7.48	36.80	10.22	52.98		1,000 feet on.
4717	12.....	do .....	180	200	28.11	26.45	7.43	36.79	10.34	52.87		1,100 feet on.
4718	13.....	do .....	Lost...									1,200 feet on.
4719	Old soft spot .....	Tough.....	180	190	24.52	26.60	7.57	35.24	10.03	54.73		Old soft stuff, 50 feet west of course.
4720	Soft spot .....	Soft.....	170	185	34.10	25.05	6.35	38.00	9.64	52.36		Soft spot, collected in cans.
4721	Station 14.....	Porous.....	180	200	25.77	27.17	7.69	36.60	10.36	53.04		1,300 feet on.
4722	15.....	Old soft.....	180	200	25.86	27.19	7.80	36.67	10.52	52.81		1,400 feet on.
4723	16.....	Porous .....	180	200	26.80	26.87	7.58	36.70	10.34	52.96		1,500 feet on.
4724	17.....	do .....	190	200	27.62	26.14	7.98	36.11	11.03	52.86		1,600 feet on.
4725	18.....	do .....	190	200	26.90	26.82	7.75	36.69	10.60	52.71		1,700 feet on.
4726	19.....	do .....	190	200	26.87	26.62	8.50	36.41	11.62	51.97		1,800 feet on.
4727	20.....	do .....	200	210	25.78	27.30	8.26	36.78	11.13	52.09		1,900 feet on.
4728	21.....	do .....	190	210	28.09	25.52	8.06	36.89	11.21	52.90		2,000 feet on.
	22.....	do .....	230	240	29.94	25.79	7.74	36.81	11.05	52.14		2,100 feet on in worked portion.
4729	23.....	Traveled .....	210	220	27.41	26.16	8.05	36.04	11.09	52.87		2,200 feet on in worked portion.
4730	24.....	Weathered .....	210	220	29.95	25.51	7.74	36.41	11.05	52.54		2,300 feet on at outer edge of road.
4731	25.....	do .....	210	220	30.65	25.66	7.44	37.00	10.72	52.28		2,400 feet on at tent, in grass, 2,500 feet.
4732	27.....	Grassy .....	210	220	27.87	26.10	7.66	36.18	10.62	53.20		On road Station 25 bears N. 7° E., and old road to Point Boyer N. 57° E.
4733	28.....	Traveled .....	200	210	26.72	26.58	7.30	36.27	9.96	53.77		300 feet on.
4734	29.....	Porous .....	190	200	26.43	26.81	7.50	36.44	10.19	53.37		600 feet on.

## LAKE PITCH—Continued.

Serial No.	Locality, etc.	Character.	Soft.	Flow.	Water.	1.			2.			3.		Remarks.
						Inor-ganic.	For organic.	Bitumen.	Inor-ganic.	For organic.	Bitumen.	For organic.	Bitumen.	
4735	Section 30.....	Old soft.....	180	200	25.96	26.86	7.51	39.67	36.28	10.14	53.58	.....	.....	900 feet on in old soft stuff. 1,200 feet on at the side of soft stuff. 1,500 feet on in old soft stuff. 1,800 feet on. 2,100 feet on. 2,300 feet on and 150 feet to road.
4736	31.....	Near soft...	180	200	25.11	27.19	7.87	39.83	36.31	10.51	53.18	.....	.....	
4737	32.....	Old soft.....	180	200	26.49	26.75	7.60	39.16	36.39	10.34	53.27	.....	.....	
4738	33.....	Porous.....	190	200	26.25	26.84	7.86	39.05	36.39	10.66	52.95	.....	.....	
4739	34.....	do.....	190	220	27.99	26.30	7.99	37.72	36.52	11.09	52.39	.....	.....	
4740	35.....	Grassy .....	210	225	26.12	27.05	7.95	38.88	36.62	10.75	52.63	.....	.....	
	Average.....				27.85	.....	.....	.....	36.56	10.57	52.87	16.66	83.34	

## LAND PITCH.

[Hadley's: North of No. 76, Lot C, Crown Land, 1,000 feet from lake and between it and ravine.]

4802	Shipping heap....	Cheese.....	200	210	27.93	26.80	7.48	37.79	37.19	10.38	52.43	16.52	83.48
4861	Porous lot.....	do.....	200	220	27.53	26.50	7.32	38.65	36.57	10.10	53.33	15.92	84.08
4741	Iron pitch.....	.....	280	300	.36	43.41	7.69	48.54	43.57	7.72	48.71	11.91	88.09
4865	.....do.....	.....	260	270	.21	46.96	7.56	45.27	47.06	7.57	45.37	14.30	85.70

[Sylvestre's, N. At fork of road, 2,500 feet from lake, on disputed claim.]

4743	From excavation..	Cheese.....	270	295	1.64	40.36	7.38	50.62	41.03	7.50	57.47	12.72	87.28
------	-------------------	-------------	-----	-----	------	-------	------	-------	-------	------	-------	-------	-------



[Dos Santos, for Reibiero Rudin & Co., on crown land north of A. King's, 2,900 feet from lake.]

4748	From excavation..	Cheese.....	250	280	13.86	33.47	8.02	44.65	38.86	9.31	57.83	15.23	84.77
4806	.....do .....	.....do .....	240	262	23.29	29.23	7.40	40.08	38.10	9.65	52.25	15.59	84.41
4746	From shipping	.....do .....	260	284	26.34	27.54	8.71	37.41	37.39	11.82	50.79	17.28	82.72
4862	heap.	.....do .....	210	232	28.91	27.11	7.80	36.18	38.13	10.97	50.90	17.73	82.27

[Feria's, Lot 22, south of Mon Repos, on road.]

4798	From excavation..	Cheese.....	280	304	24.53	28.58	9.36	37.53	37.88	12.39	49.73	19.95	80.05
4744	.....do .....	.....do .....	200	220	29.69	26.41	8.08	35.82	37.56	11.49	50.95	18.40	81.60
4801	Heap on burial	.....do .....	200	210	24.65	27.42	7.41	40.52	36.39	9.83	53.78	15.54	84.46
4860	ground.	.....do .....	210	230	27.61	27.89	7.38	37.12	38.52	10.19	51.29	16.57	83.43

[Mon Repos, de Silva, etc. Land in litigation, November, 1891.]

4803	Mon Repos .....	Cheese.....	310	328	24.75	35.90	6.44	32.91	47.71	8.55	43.74	16.35	83.65
4805	Opposite lot 8 .....	.....do .....	290	320	30.27	26.56	7.61	35.56	38.10	10.92	50.98	17.14	82.36

[Turnbull, Stewart & Co.'s collections from village lots.]

4807	From shipping	Cheese.....	240	264	23.58	30.09	8.60	37.73	39.37	11.25	49.36	18.55	81.45
863	heaps.	.....do .....	220	240	31.33	26.28	7.51	34.88	38.27	10.94	50.79	17.72	82.28

[Village lots.]

4804	Benicourt .....	Cheese.....	290	314	.30	39.34	4.82	57.54	39.46	8.85	57.69	14.62	85.38
4799	Lot 56 .....	.....do .....	280	300	31.76	25.12	7.54	35.58	36.81	11.05	52.14	17.49	82.51

The general appearance of all the samples from the lake is the same, except that of the soft pitch. They present that porous, live, and more or less moist character for which, as I have said, the pitch from the lake is noted, and although at the edges the surface is more or less dry and scaly, the pitch is found at a short distance below to be normal. This similarity of appearance, is accompanied, as an inspection of the preceding analyses shows, by a very great uniformity in composition. The average composition of lake asphalt, and the extremes which were found, excluding the soft and medium soft portions near the center, is as follows:

	Average.	Highest.	Lowest.
Water.....	27.85	30.65	25.77
Inorganic.....	26.38		
Organic, not bitumen.....	7.63		
Bitumen.....	38.14		
When calculated to dry substance:			
Inorganic.....	36.56	37.02	36.27
Organic, not bitumen.....	10.57	11.75	9.96
Bitumen.....	52.87	53.77	51.68

In considering these results, it must be remembered that the amount of water found may in some cases be somewhat smaller than the true amount originally present in the pitch, as it slowly dries out, and is very liable to do so during the transportation and preparation of the samples. Nevertheless, the closeness of the percentage composition of the original samples is remarkable, and it is plainly no matter of accident. From a mineralogical point of view the water, organic matter not bitumen, and mineral matter must be as much original and essential constituents of the pitch as the bitumen, and must have been derived from the same original source.

When the analyses of the specimens are calculated to a basis of dry substances, the variations in composition become naturally even smaller and the more striking the uniformity of the proportion of each constituent in the pitch from all parts of the lake.

#### THE SOFT PITCH.

The soft pitch which is found in the center is, however, in addition to differences in its physical nature, somewhat different in its composition from the pitch of the rest of the lake.

If it is heated for some time there is a great frothing, and an evolution of gas occurs, accompanying the volatilization of the water, together with some of the light oil which it contains. The resulting product is no longer a mass easily kneaded, but resembles more closely an ordinary soft, refined pitch or hard cement. A comparison of the soft material with the average lake pitch is seen in the following figures:

	Soft.	Average lake.
Water and gas.....	34.10	27.35
Inorganic matter.....	25.05	26.38
Organic matter not bitumen.....	6.35	7.63
Bitumen.....	34.50	38.14
	100.00	100.00

In its natural condition the soft stuff contains more water than the average lake pitch.

When calculated to dry substance the figures become:

	Soft.	Average lake.
Inorganic matter.....	38.00	36.56
Organic matter not bitumen.....	9.64	10.57
Bitumen.....	52.36	52.87
	100.00	100.00
When calculated to inorganic free substance:		
Organic, not bitumen.....	15.55	16.66
Bitumen.....	84.45	83.34
The substances—		
Softened at.....	170°	190°
Flow.....	185°	200°
Volatilize in 10 hours at 400° F.....	12.24	3.66

The amount of inorganic or mineral matter is somewhat higher in the soft than in the average lake pitch and the organic matter not bitumen, a little lower, but the general relation of the constituents is such as to show them to be of the same origin, the one having merely more oil and being more readily melted than the other, the cause of which will be examined later. It is evident, however, that as heat reduces it so quickly to a comparatively solid state, that its softness is somewhat due to its physical condition and the active state of change it is in, as well as to its lower melting point.

#### LAND PITCH ANALYSES.

An examination of the analyses of the land pitch specimens shows in comparison with those of the lake pitch an apparently very wide variation in composition. Without drawing an average from such a heterogeneous set of specimens the extremes for each determination were found to be:

	Highest.	Lowest.
Water.....	31.76	0.21
Dry substance:		
Inorganic matter.....	47.71	36.39
Organic matter not bitumen.....	12.39	7.50
Bitumen.....	53.78	43.74

While some of the specimens of land pitch contain as much or more water than those from the lake, many, especially the iron pitches, contain much less, a drying out having accompanied the changes in its nature. In the commercial supply, however, which has been sorted and which contains only cheese pitch there is probably but a small difference, the average found in the heaps collected for shipment being 27.36 per cent.

In the same way with the other constituents there is a great deal more variation in the samples of land pitch than in those from the lake, and in the iron pitches there is a decided reduction in the amount of the organic matter not bitumen, from that found in any lake specimen; but if we select and average only the analyses of specimens of the commercial supply of land pitch from the heaps, no such striking difference will be found; following being the average and extremes for eight specimens of material ready for shipment:

	Average.	Highest.	Lowest.
Water.....	27.36	31.33	23.58
Dry substance:			
Inorganic matter.....	37.74	39.37	36.39
Organic matter not bitumen.....	10.68	11.82	9.83
Bitumen.....	51.58	53.78	49.36

There is but little difference from the variation of lake pitch, a point which I demonstrated in 1890.



It is apparent, therefore, that in the commercial supply of land pitch which has been carefully selected and from which alteration products and soil have been excluded there is no essential difference in the relative proportions of mineral matter, bitumen, and organic matter not bitumen from those in lake pitch. The difference between the two pitches depends, therefore, on some variation in the character of their constituents. The mineral matter and the organic matter not bitumen do not change so as to affect the properties of the pitch, as will be seen when they are described further on. The bitumen in the two pitches must therefore be to some extent unlike, and it is a fact that the original bitumen of the lake pitch has become to a greater or less degree modified in the land deposits. As the soft spots in the lake gradually harden and become like the rest of the surface so this process continues, making the outer portions of the lake harder than the center and the land deposits harder than any part of the lake. We find evidences of this in the heaps of pitch ready for shipment on the shore. Those of lake pitch rapidly run together and become a homogeneous mass in a short time, while the land pitch, even under the strong tropical sun still shows the distinct lumps of which it was originally made up, for a longer or shorter time, depending on the quality of the land deposit. With the poorest deposits they remain so loose and friable that it is possible to shovel over such heaps even after weeks.

Their softening and flowing points of the specimens examined reveal the difference, and the results show the greater softness of the lake pitch, and were it not for the difficulty of getting rid of the water in such small samples as were collected of the crude pitch, without losing some of the lighter oils, upon which the flowing point much depends, the relative differences shown in the tables would be greater and more distinctive.

In consequence of this difficulty of removing the water on a small scale from specimens, without decided changes in their character, the comparative study of the bitumen in the two kinds of pitch has been continued with typical specimens of refined pitch, carefully handled on a large scale.

#### VARIOUS FORMS OF PITCH NOT OF COMMERCIAL VALUE.

In addition to the forms of lake and land pitch, which are in use in pavement, there are several forms which have been mentioned which are of interest as showing the results of age and the consequent alterations upon pitch. They include the chocolate-colored alteration products on the exposed surfaces of land pitch, the friable soil which results from the disintegration of the oxidized and rotten stuff and the resonant material existing in the reefs and shore deposits.

Analyses of these varieties of pitch, gave the following results:

No.	Form.	Original substance.				Dry substance.		
		Water.	Organic.	Organic not bituminous.	Bituminous.	Inorganic.	Organic not bituminous.	Bituminous.
4750	Iron pitch, selected ...	9.78	34.13	8.40	47.69	37.83	9.31	52.86
4751	Chocolate, blended ....	3.70	37.90	8.61	49.79	39.35	8.94	51.71
.....	Chocolate .....	1.14	36.87	8.38	53.61	37.30	8.47	54.23
4742	Sylvestre soil .....	35.13	38.47	18.17	8.23	59.30	8.01	12.69
4752	Dundonald soil .....	7.04	80.17	11.60	1.19	86.24	12.48	12.80
.....	Black ledge .....	2.27	60.24	14.54	22.95	61.64	14.88	23.48
.....	Gray ledge .....	1.59	64.73	19.52	14.16	65.77	19.83	14.40

The change that takes place seems, as far as the amount of soluble bitumen is concerned, to be at first very slight, except in color, and then a gradual conversion of the bitumen into organic matter not bituminous, followed by a removal of this organic matter by oxidation. It is a change which is of interest from a technical point of view as illustrating in the strongest way the fact that the difference between land pitch and lake pitch is but the beginning of this process, and that the land pitch is inevitably inferior to that of the lake by just the amount the former has suffered during the process of oxidation, which in some specimens is very small and in others large, depending upon the conditions which have existed under different surroundings.

#### THE DIFFERENCES IN THE CONSTITUENTS OF LAKE AND LAND PITCH.

Refining pitch commercially consists in heating large quantities in stills or boilers to as high a temperature as will drive off the water in the material and melt it with-

out volatilizing the oils to any noticeable degree, the heat being applied, not directly from a fire underneath the vessel but by conducting the products of combustion around it beginning at the upper portion of the still. The melted product from which the water has evaporated, the coarser mineral matter subsided, and the lighter organic matter been skimmed is drawn off and is known as refined asphalt, or in Trinidad as *epuré*. It gives us the bitumen of the pitch in a more available form for investigation, and where the process has been carefully conducted, in one representing very closely its nature and character as found in the original pitch.

## SOFTENING POINT.

As has been said the differences in the pitch from the lake and from the land deposits are first revealed by the lower softening point of the former. In commercial refined asphalt this difference is readily recognizable. Determinations accumulated during the past three years with different cargoes have furnished the following extremes:

	Soft.	Flow.
	°F.	°F.
Refined lake asphalt.....	180—192	189—210
Refined land asphalt.....	190—237	210—255

From a commercial point of view it is not quite possible to tell from the softening point alone the origin of refined asphalt, where refining has been carefully conducted. The figures, however, are representative of characteristics which can be made visible by reducing portions of the refined asphalt to an impalpable powder when cold, and then allowing them to stand in a small heap at ordinary temperatures, 70° to 80°. Under these circumstances the lake material will become caked and tough after 24 hours, so that the powdery mass can only be separated with the use of some strength. The best land asphalt adheres somewhat, while the poorer qualities remain in their original powdery condition, and in no wise agglomerated.

If in addition these preparations are subjected to a temperature approaching or equalling their softening points they will flow if placed on an incline, and the distance covered may be expressed in percentages of some standard sample, thus giving another expression of the quality of the material.

The softening point of refined asphalts is, of course, modified by the care exercised in refining, and somewhat by the portion of the still from which the sample is drawn when any sedimentation has been allowed or excessive heat applied.

Refined lake asphalt of good quality always softens below 190° F., refined land above that temperature.

## DISTILLATE AT 400° F.

If refined asphalts of both lake and land origin are subjected for a certain length of time (conventionally ten hours) to a temperature of 400° F. in a well-protected retort, the percentage of oil volatilized will be found to correspond to the nature of the bitumen and the source of the asphalt.

Asphalt collected at intervals across the lake and from several land deposits have yielded the following results:

Lake series:		Land deposits:	
Margin .....	2.56	Point d'Or .....	1.37
Near center .....	6.18	Bellevue .....	1.39
Center .....	6.80	Brighton .....	1.32
300 feet north .....	4.44	Shore .....	1.20
200 feet further .....	4.28	Benicourt .....	.86
400 feet further .....	3.01		
100 feet from digging .....	3.28		

These determinations made by Mr. Bowen on the crude material show what a decided difference there is between pitch from the two sources and that in the lake itself; the nearer the source is to the center, the larger in amount and the more readily volatile is the oil there present. In the soft pitch there is as much as 12 per cent of oil which goes over at 400° F. and in the pitch of the semi-soft spots as much as 8.

These results with the crude pitch are quite similar to those obtained with refined material except that as the latter has lost some of its oil in refining they are relatively lower. Good refined lake asphalt will volatilize not less than 3.00 per cent of

oil in ten hours at 400° while land asphalt will rarely equal this and often in the poorer kinds goes below 1.00 per cent, while from the hard reefs nothing is volatilized.

The amount of this readily volatile matter is therefore plainly an additional index of the quality of the pitch and its value for paving.

PETROLENE OR BITUMEN SOLUBLE IN PETROLEUM NAPHTHA.

As is well known all the bitumen of Trinidad pitch is soluble in carbon disulphide, but only a portion of this, which has been called petrolene, is soluble in petroleum naphtha. Determinations made with various refined asphalts show that the percentage of the entire amount of bitumen thus soluble is another index of its quality in the same way as the softening point and the amount of oil volatile. This is naturally so since the softening point is dependent on the amount of oil or petrolene present and the matter volatilized is that portion of the same substance which volatilizes at comparatively low temperatures. The following determinations illustrate the variations in refined asphalts from several sources in this respect.

*Lake refined, soluble in petroleum naphtha.*

	Proportion of—	
	Entire material.	Bitumen.
Soft, refined.....	48.36	92.32
Lake, 530C .....	40.01	70.03
	39.56	69.56
	39.41	69.30
5316 .....	39.50	69.00
5333 .....	41.59	72.37
5330 .....	41.43	73.60
Old, refined .....	36.00	66.13
Do .....	38.14	68.53
Still No. 1, June, 1892:		
First run .....	38.65	69.97
Second run .....	37.40	68.48
Third run .....	37.38	69.35
Still No. 4, August, 1892:		
First run .....	40.00	69.75
Second run .....	39.13	69.07
Third run .....	40.52	72.82

*Land refined, soluble in petroleum naphtha.*

	Proportion of—	
	Entire material.	Bitumen.
Soil .....	5.94	46.82
Chocolate pitch .....	25.17	48.90
Iron pitch .....	31.60	64.60
Teneriffe .....	33.89	64.08
Saracas .....	35.62	64.53
Jones Point .....	34.73	59.61
New York .....	30.31	57.59
No. 1 .....	36.47	65.68
No. 2 .....	37.56	67.37
No. 4 .....	35.14	63.53
No. 7 .....	35.22	65.52
No. 5 .....	34.98	68.27

It is apparent that there is a distinctive difference in the character of the bitumens in the pitch from the two sources, and one which is of value as a means of distinguishing them.

Upon the presence of this oily or soluble bitumen the viscosity and cementitious value of the pitch largely depends, but at the same time it is found that adding asphalt oil to pitch in which it is deficient does not restore or renew the properties which have been lost. This shows that the absence of the oily bitumen is indicative of changes which have gone on in the whole of the bituminous constituents of the pitch and rendered it harder and more brittle. It is well known that no addition of petroleum or asphalt oil will give to iron pitch any cementitious value, and in the same way it is



found that cement made for paving purposes from pitch in which the original oil has suffered change or is lacking wants toughness and tenacity and will not pull out into a long thread, as will that made from lake pitch.

The process of hardening of the pitch seems, therefore, to be connected with a change in this oily bitumen, the more volatile and soluble constituent known as petroleum. The more of this there is present the softer and tougher is the pitch, and as a chemical change goes on and converts it into a harder and less soluble and volatile material, the less yielding and the more brittle the pitch becomes, as is found to be the case in land and iron pitch, which contain the least of it. The soft pitch at the center of the lake was found to volatilize as much as 12 per cent of oil at a temperature of even 300° F., and in a like way to contain the largest amount of petroleum, or portion of its bituminous constituents soluble in petroleum naphtha.

In the various qualities of Trinidad pitch it will be found, therefore, that the proportion soluble in petroleum of the entire bitumen varies from 92 to 57 per cent, and that the more life the pitch has the larger is the percentage.

In other asphalts the same distinction between the bituminous constituents is found; and in the case of a maltha from California, where 99.9 per cent of the bitumen is of a nature soluble in petroleum, the pitch is liquid, while a Venezuelan sample, where 68.49 per cent out of a total bituminous content of 97 per cent is soluble, compares in consistency with lake pitch, the percentage of the whole bituminous matter which is soluble in petroleum naphtha in the two pitches being: Venezuelan, 70.5 per cent; lake, 70 per cent—a form of statement in which the inorganic matter of the Trinidad pitch has no influence. A more extended examination of the relations of the two classes of bitumen is now in progress.

#### SPECIFIC GRAVITY.

Determinations of the specific gravity of refined asphalts in the solid state are readily made, and have been found characteristic of the source of the material, that of the lake pitch being lower than that from the land deposits.

Following are accumulated results, which show the relation of water and pitch at 77° F., 25° C., which has been found to be a more suitable standard in our climate for normal temperature than the usual 60° F.

#### *Specific gravity of refined pitch.*

Lake:		Land—Continued.	
3213, June, 1890.....	1. 3666	4750, iron pitch .....	1. 4506
4719, old soft spot.....	1. 3581	Baltimore, 1890 .....	1. 4339
Pocahontas, 1890 .....	1. 3708	Cranford Paving Company,	
5316, August, 1892, Barber As-		1890.....	1. 4329
phalt Paving Company ....	1. 3751	4802.....	1. 4216
5306, April, 1892, Barber As-		2853, Teneriffe .....	1. 4081
phalt Paving Company ....	1. 3800	Jones Point, 1892 .....	1. 4002
5299, August, 1892, Barber As-		5274.....	1. 4013
phalt Paving Company ....	1. 3898	5312.....	1. 3930
4559, Denver.....	1. 3866	4560.....	1. 4067
Spring, 1892, Barber Asphalt		4801.....	1. 3950
Paving Company .....	1. 3861	5328.....	1. 3969
5333.....	1. 3771	5329.....	1. 3988
5330.....	1. 3857	5331.....	1. 4187
Land:		5334.....	1. 4232
3533, 1890.....	1. 4916	5332.....	1. 4316

The specific gravity of refined pitch is naturally largely influenced by the amount of mineral matter which it contains, and it seems to be a fact that refined land pitch usually contains the more mineral matter, due to greater sedimentation being possible with the lake material, which has greater fluidity on melting.

In well-refined land pitch, in which the amount of mineral matter is at times no greater than that in good refined lake asphalt, there is still found, however, a sufficient difference in specific gravity to allow a ready distinction between the two. This shows that there must be a decided difference in the specific gravity of the bitumen in the two pitches, and points to the conclusion that the bituminous material soluble in petroleum naphtha, in undergoing the chemical change which makes it insoluble, less volatile and more brittle, increases at the same time in density.

Actual determinations of the specific gravity of the soft bitumen soluble in petroleum naphtha and of the hard bitumen soluble only in carbon disulphide show that that of the latter is sufficiently higher to produce a decided effect on the specific gravity of the refined pitch when the relative proportions are varied, petroleum or soft bitumen having a sp. gr. of 1.032 and asphaltene or hard bitumen of 1.142.

It therefore happens that the pitch from the soft spot has the lowest specific gravity, while that of iron pitch is the highest.

There can, of course, be cases where confusion might arise from overheating lake pitch in refining, or by the unknown addition of oil after refining to land pitch. In the former case the asphalt would, even as from a lake source, be of little value and could properly be classed with land pitch, and in the latter case the fraud would be detected by other means, and as the production of refined asphalt and asphaltic cement should be watched and inspected through all the steps of preparation, any such injury or falsification would of course be discovered.

In the table it will be seen that, although there are considerable variations in each class, depending on the care in refining and in collecting the pitch, the specific gravity of refined lake asphalt has not been found to go above 1.3900, nor that of refined land asphalt to fall below that figure.

In this characteristic we have one of the quickest means of distinguishing between refined asphalts, and with the use of all the determinations which have been mentioned I have never been deceived as to the origin of any specimen of refined material, although the eye and a knife blade are perhaps sufficient for a skillful person.

#### VALUE OF CERTAIN CHARACTERISTICS OF REFINED ASPHALT AS A MEANS OF IDENTIFYING ITS SOURCE.

As an illustration of how the determination of the characteristics which have just been described is of value as a means of identifying the source of asphalt, the following case, where seven samples of refined were submitted to me with no further identification than being numbered, will serve. An examination gave the following results, according to which they were classified correctly, as was afterwards shown:

##### *Examination of refined asphalts.*

[Origin unknown to the analyst.]

Chemist's number.....	5328	5329	5330	5331	5332	5333	5334
Capt. Fiebiger's number ...	1	2	3	4	5	6	7
Specific gravity $\frac{77^{\circ}}{77^{\circ}}$ F .....	1.3969	1.3988	1.3857	1.4187	1.4316	1.3771	1.4232
Softens.....	195°	197°	190°	195°	198°	183°	210°
Flows.....	208°	215°	205°	210°	210°	198°	230°
Bitumen .....	55.52	55.75	56.29	55.31	51.22	57.47	53.75
Organic matter not bituminous.	8.96	8.06	8.05	7.84	7.78	7.05	8.01
Inorganic matter.....	35.52	36.19	35.66	36.85	41.00	35.48	38.24
Bitumen soluble in petroleum naphtha.	36.47	36.79	41.43	35.14	34.98	41.59	35.22
Per cent of total bitumen soluble.	65.68	65.99	73.60	63.53	68.27	72.37	65.52
Viscosity.....	Semiadhesive.	Semiadhesive.	Adhesive	Friable.	Very friable.	Adhesive	Friable.
Quality .....	Best land	Best land	Average lake.	Average land.	Poor land	Best lake	Average land.
Source as eventually revealed.	Saracas Jones Pt.	Saracas Jones Pt.	Lake B. A. P. Co.	Barbadian Jones Pt.	Barbadian Jones Pt.	Lake B. A. P. Co.	Miscel. Jones Pt.

It seems, therefore, that there is such a decided difference in the nature of the bitumen found in the different deposits at La Brea that they can be distinguished without difficulty, and that in consequence it is only rational to suppose that the freshest and least altered deposits must be the most valuable.

#### THE NATURE AND ORIGIN OF THE TRINIDAD PITCH DEPOSITS.

To obtain a better understanding of the nature of Trinidad pitch deposits and of their origin, a more extended examination has been made of some of the constituents than has so far been mentioned. As has been said, the great uniformity of the relations between the water, mineral matter, bitumen, and organic matter in all the unaltered pitch, shows that their formation must have been simultaneous and that none of them can be considered as adventitious. It would be impossible for water in any adventitious way to become so intimately mixed with the bitumen as to form practically an emulsion. In refining, much of this water rises and floats upon the surface of the pitch and can be collected, of course, somewhat changed by evaporation and

oxidation. After many attempts to separate it in other ways without success, it has been examined in this form, and its nature is probably quite as well shown. It is of a distinct saline and thermal character, containing a large amount of salts in solution, which explains the efflorescence seen upon the crude pitch and which were for a long time attributed to sea salt.

The results of an analysis were as follows:

*Analysis of asphalt water.*

[Specific gravity 1.017  $\frac{15^{\circ} \text{ C.}}{15^{\circ} \text{ C.}}$  Reaction strongly acid.]

In 1 kilogram.

Cl .....	6.7757	K .....	.3391
SO <sub>3</sub> .....	5.5409	Li .....	.0271
SO <sub>2</sub> .....	.0467	Ca .....	.5280
S <sub>2</sub> O <sub>7</sub> .....	Traces.	Mg .....	.2666
H <sup>2</sup> S .....	Trace.	Fe .....	.0720
S .....	Trace.	Al .....	Trace.
SiO <sub>2</sub> .....	.0688	Mn .....	None.
B <sub>2</sub> O <sub>3</sub> .....	.0117	Cs. and Rb .....	None.
I .....	.0008	Organic .....	.4901
Br .....	Trace.	Oxygen .....	
P <sub>2</sub> O <sub>5</sub> .....	None.		
Na .....	6.5149		21.0896
NH <sub>4</sub> .....	.4071		

The presence of borates, iodides, so many forms of sulphur compounds, and other characteristics show at once that this water must be of the same origin as that of many thermal springs; that is to say, volcanic. The steam which is formed in the refining of the crude pitch at first contains much hydrogen sulphide, which blackens all the white-lead paint in the vicinity of the refinery. This, under favorable conditions of heat and evaporation, at times changes to sulphurous anhydride, which again bleaches out the white paint, and the condensed steam shows a strongly acid reaction. In the presence of one another the hydrocarbons and the thermal water at high temperature evidently produce complicated reactions.

The principal salts in solution are, in the order of their amount, sodic chloride and sulphate, ammoniac, potassic, and ferrous sulphates; borates, iodides, etc., being present in smaller amounts, their aggregate being so large as to make it an unusually strong mineral water.

MINERAL MATTER.

The inorganic or mineral matter which is left in burning off the hydrocarbons and other organic substances is an ash, flesh colored from the iron oxide derived from the ferrous sulphate of the water in the pitch.

It consists of the salts dissolved in the water and of some clay mixed with a large proportion of silica in the form of minute sharp conchoidal fragments of quartz. An analysis showed:

	Per cent.
Silica, clay, etc., insoluble in acid .....	82.63
Soluble salts, alumina and iron, etc .....	17.37
	<hr/> 100.00

Of the insoluble portion nearly ninety-five per cent is silica. Under the microscope this silica is very sharp, with a conchoidal fracture and largely in a very impalpable state of division. Its origin in this fine condition is obscure. The entire absence of lime, except the very small proportion in solution in the waters, also is a remarkable feature of the ash. Carbonates would of course not be expected, but other lime salts might well be.

ORGANIC MATTER NOT BITUMEN.

The organic matter not bituminous possesses no distinctive characteristics. A small portion of it is, no doubt, derived from grass, stems, sticks, etc., blown on the lake, a little more organic matter of this nature being found in the pitch on the margins of the lake than in that toward the center, while the soft pitch contains



nearly 1 per cent less than the average lake deposit. The largest part of it, however, is an impalpable powder without any signs of organization, and is apparently a by-product in the formation of the bitumen.

#### BITUMEN.

The bitumen of Trinidad asphalt, like that of many others, is of two kinds. One is soluble in petroleum naphtha, while the other is only soluble in carbon disulphide. The former is a brownish sticky material, which at summer temperatures can be drawn out in strings. The latter is a brittle, glassy, black pitch, readily reduced to powder and not melting on the application of heat. The names which Boussingault gave years ago to the substances which he incompletely separated from asphalt will serve well to distinguish them, namely, petrolene for the bitumen soluble in petroleum, and asphaltene for that only soluble in carbon disulphide.

To the petrolene the Trinidad pitch owes its cementitious value, and the larger the proportion the better the pitch, as has been already shown. The nearer the center of the lake pitch is taken, the more petrolene it contains.

Asphaltene seems to be an alteration product of petrolene. It has a higher specific gravity than petrolene, 1.142 as compared to 1.032, a difference which, as has been shown, enables us to distinguish the quality of refined pitches to a certain extent by their specific gravity.

Petrolene consists of a series of hydrocarbons of varying consistency from a light oil of specific gravity below .9 to those heavier than water. These hydrocarbons include several series, both saturated and unsaturated.

A more extended examination of them is in progress and will be published in the future.

#### THEORIES OF THE FORMATION OF BITUMEN.

Several theories have been advanced, some of which attribute the formation of the pitch to chemical causes and the others to animal or to vegetable remains. From either of these sources it may have reached its present position through springs or distillation, or have been deposited in place with the rocks in connection with which it is found. The character of bitumens from different localities is very variable, and they are without doubt not all of the same origin or chemical nature.

Suggesting the chemical origin of some forms of bitumen, Berthelot, in 1869, advanced a theory based on the action of carbonic acid on the alkaline metals at high temperatures, but this has not grown in favor.

In 1877 Mendeleff, from a study of the oil wells of the Caucasus and elsewhere, concluded that the origin of bitumen could not be in organic remains, as this would presuppose the formation of so much carbon in geological times, when none was known to exist. He therefore proposed that with the admission of the existence of carbides of metals at high temperatures deep down in the earth, the origin of bitumen could be attributed to the infiltration of water, and its action on the carbides with the formation of saturated hydrocarbons and metallic oxides, the former being transported to the surface by aqueous vapor, where they might appear in springs or as impregnating rocks.

This explanation of the origin of petroleum finds support from the following facts: The predominance at the surface of the earth of elements having a small atomic weight; the appearance of petroleum in directions corresponding to great circles; the relations remarked by several naturalists, particularly M. Abech, between petroleum and volcanic manifestations.

The fact that the pitch deposits of Trinidad lie directly on the line of the strong volcanic action which appears in the lesser Antilles, and contain such a distinctive volcanic water as a prominent constituent would seem to confirm the application of Mendeleff's theory to, at least, this particular case, especially as he suggests that saline waters accompanying bitumens might prove on investigation to support his views.

On the other hand Wall, and Sawkins, who looked very carefully into the origin of the deposits from a geological point of view, but without any chemical investigation of the composition of the crude pitch, advance the theory of origin in vegetable remains. On pages 1 and 3 of their report they say: "A sectional exposure at Point d'Or is extremely instructive. The asphaltic shale is perceived over a bed of loose, yellowish sand, free from bitumen. The asphaltic shale is brown, porous, shaly sand, including masses of asphalt, rather irregularly distributed, but with manifest tendency to stratification. Porosity is due to loss of material, evidently asphaltic, which has run and secreted itself in lines of weakness. The expansive force so exerted has elevated laminae 30° to 50°. When this bituminous bed thins out asphalt disappears as in Point d'Or pasture."

This seemed to them to justify the conclusion that the "origin of the asphalt is in

the bed and is not ascending, as some evidence of passage would appear. The same conclusions are drawn from repeated strata from Point La Brea to Guapo." They conclude that the asphaltic beds were originally carbonaceous or lignitic shales and discovered what they considered to be conversion in every stage from organic texture to obliteration of the wood. They found no pitch in strata of pure carbonaceous content, but that it is characteristic of those with much earthy matter and is a modification of the production of lignite.

In Wall and Sawkins' day but little excavation had been done for pitch, and those made since in large numbers have afforded a much better opportunity for studying the origin of the land deposits.

They do not confirm their observations. On the contrary, the deposits show no signs of conversion of vegetable matter into bitumen, and that their origin has been largely a mere infiltration of the soil by the bitumen as already formed, and which has subsequently changed in its chemical nature under the conditions there existing. A large proportion of the bitumen has undoubtedly come from the lake and another portion has been forced up from below in a quite liquid state in much the same way as is seen at the soft spot in the lake.

I do not believe, therefore, that the "bituminous substances at La Brea, whether liquid or solid, have been formed from vegetable material by direct conversion at ordinary temperatures."

No evidence of this appears in the material which is ejected at the soft spot, which is in an active state of chemical change, and like all other data, gives a far more reasonable basis for the assumption of volcanic origin.

#### THE COMMERCIAL HISTORY OF THE PITCH INDUSTRY.

Sir Walter Raleigh is said to have pitched his ships with the bitumen of La Brea as long ago as the days when he sailed the Spanish Main, but the lake remained nothing more than a natural wonder, practically until the seventies. In 1851 the Earl of Dundonald leased a large part of it for twenty years and also some of the adjoining land. In 1856 a joint stock company was organized, called the Trinidad Petroleum Company, Limited, for the purpose of making oil from the pitch or from an oil spring near at hand. To this company the Dundonald lease was assigned. Remnants of their works are to be seen to-day at the oil spring, a short distance below the lake on the shore. Their attempts were failures, and the company went into liquidation in 1866. Mr. T. A. Finlayson was its Trinidad manager, and apparently succeeded to its rights under the leases, as he continued to ship pitch, without doubt, from the lake. Most of such shipments were for use in mastic, and were largely sent to France and Germany. In 1858 Wall and Sawkins say that pitch for export was all obtained at La Brea Point, and from 1862 to 1866 O'Connor Brothers shipped from the same place.

All attempts to make the pitch of commercial importance had failed up to 1871. In that year we find the New York and Trinidad Asphalt Company bringing pitch in some amount to New York. Hitherto endeavors had been made to imitate the asphalt-rock pavements of the continent with mixtures of coal tar and sand only, but many of these proving great failures, Mr. E. J. De Smedt, formerly of this office, experimented with Trinidad asphalt, and in 1870 laid a crude pavement of this material in Newark. In 1871 or 1872 he also laid another piece around Battery Park, New York, and in 1873 or 1874, one on Fifth Avenue, in front of the Worth Monument, which, with one or two resurfacings, remained until 1886. In 1874 or 1865, Eighteenth street was paved with a Trinidad composition between Fourth avenue and Irving Place; Twenty-eighth street, between Broadway and Fifth avenue, and Thirty-eighth street, from Fifth avenue to Madison avenue. These surfaces were laid on old stone pavement as a base, and the one on Twenty-eighth street is still in use, although it has been much patched; Eighteenth street was resurfaced eight or ten years ago, and Thirty-eighth street in 1891.

These experiments attracted considerable attention, and when Congress, in 1875-'76, provided for paving Pennsylvania avenue, from the Capitol to the Treasury, the commission appointed to select the best form of pavement, Gen. Wright, Gen. Gilmore, and Architect Clark, decided to put down an asphalt pavement, and from the Capitol to Sixth street to lay compressed rock asphalt, and the remainder Trinidad sheet asphalt. The contractors for the work were the New York and Grahamite Company, of which George Averill was the manager, and with whom De Smedt was connected.

The rock-asphalt surface was soon condemned for the slipperiness which is always characteristic of this pavement, and no more has since been laid. The Trinidad surface was so satisfactory that when the permanent Board of Commissioners of the District of Columbia came into power in 1878 they decided to confine the pavement of streets not of excessive grade or having heavy or confined traffic to Trinidad asphalt.



## CONCLUSIONS IN REGARD TO THE PRESENT POSITION OF THE PITCH INDUSTRY, AND THE RELATIVE VALUE OF LAKE AND LAND PITCH.

In the light of the foregoing investigations and facts the following brief conclusions appear to me to be justified in regard to the present status of the pitch industry:

Land pitch is inferior to lake pitch in cementitious value. Land pitch is better in quality the nearer its source is to the lake. Land pitch can readily be distinguished from lake pitch by certain characteristic differences when examined in the refined state.

Lake pitch is superior for paving purposes because it contains more bitumen in a viscous or cementitious form and less of the brittle bitumen, which is of smaller value.

The addition of oils to the latter form of bitumen will not produce as desirable cement as that made from lake asphalt. It will not draw out to a long string like lake asphalt cement, but breaks short and is of the same comparative value that cold short is to tough and good iron.

Land pitch requires the addition of more petroleum oil to produce a cement of required consistency than lake pitch.

Land pitch would never be used were lake pitch generally available.

The poorer forms of land pitch are now generally conceded to be unfit for paving, and the question may therefore be asked where the line or degree is to be drawn as to what is suitable.

The large extent of the lake deposit permits of an unfailing and uniform supply which can always be depended on and always handled in the same way.

Various deposits of land pitch vary widely and demand great skill in manipulation to produce even the best results attainable with this kind of pitch, although the care used in selection and cutlassing has improved the character of the shipments decidedly.

This element of manipulative skill in handling the materials properly for the production of a good pavement, that is to say a thorough understanding of the technique of the industry, in the works and in the street, should without doubt have equal consideration with the quality of the materials in use.

A skilled laborer can probably make a better pavement from land pitch than an unskilled one with lake pitch.

With the enormous growth of the industry within a short period of time the demand for experts has continually exceeded the supply. Every one engaged, from the superintendents and foremen down to laborers, has a decided influence on the character of the finished work. Those who refine and handle the crude asphalt, who make the asphaltic cement and compound the surface mixture, and those who rake and roll the material in the street, according to the degree of their knowledge, experience, and skill contribute to the success or failure of the work. The older paving companies certainly control the best labor and brains, having had the longest and most successful experience, and the city of Washington as a pioneer in laying asphalt surfaces has probably at present as able a set of men employed by its contractors as can be found. The character of our street surfaces of all ages attests this fact and it would seem to me to be undesirable at the height of our success to enter into any experiments with new and untried conditions and materials.

Should any competitors of the present contractors or methods desire to exhibit their work there is no reason why they should not be given an opportunity to prove it of superior character by laying a certain amount at their own expense where it would be subjected to fair conditions of traffic and wear in comparison with our own asphalt surfaces.

I should, therefore, in the light of all my experience and knowledge, unless further evidence is adduced or great pecuniary advantages offered, recommend that the District of Columbia provide in its specifications that lake pitch be used in pavements for which it contracts, and that the work shall be done by the most skillful and experienced labor and in the most approved manner.



## APPENDIX.

[Ex. Am. Journal Science and Arts, Vol. XX, p. 153 (second series), 1855.]

## ART. XIII.—NOTICE OF THE PITCH LAKE OF TRINIDAD.

By MR. N. S. MANROSS.

This remarkable curiosity is situated on the western shore of the island about midway from its northern to its southern extremity. A range of mountains 1,200 feet high crosses the upper end of Trinidad, forming a continuation of a still higher range upon the mainland. Through this chain the sea has broken the narrow passage called the Dragons Mouth, by which the strong current which sets in at the southern extremity of the gulf of Paria, and is there augmented by the waters of the Orinoco, finds passage into the Caribbean Sea. So narrow is the opening that it can only be perceived when the voyager is directly in front of it. From all other points of view the island appears like a peninsula still joined to the continent by an unbroken chain of mountains. The sea is still unsatisfied with its narrow outlet and is constantly undermining the vast isolated masses of rock which stand like teeth in the Dragons Mouth.

The freshly-broken precipices give evidence of recent falls which indeed have been sometimes heard at Port au Spain, 10 miles distant.

These mountains consist mainly of highly inclined and contorted strata of talcose and micaceous slates containing veins of somewhat crystalline quartz. The flanks and spurs of the range, however, exhibit a dark blue limestone, much veined with white, in which there are caves of considerable extent. These, so far as I could ascertain, are the only ancient rocks, as they are the only mountains in the island.

On the south the mountains sink abruptly down nearly to the level of the sea, leaving the remainder of the island an almost unbroken plain of tertiary clay, sandstone, and marls.

From the city of Trinidad or Port au Spain, which stands between the base of the hills and the sea to the Pitch Lake, 39 miles south, only a single hill, some 200 feet high, breaks the uniform, and, for the most part, densely wooded surface.

A fine steamer plies up and down the Gulf of Paria, touching twice a week at the village of La Brea in front of the Pitch Lake. As we approach the village a long black line between the white foam of the waves and the dark green of the dense vegetation indicates something unusual in the nature of the shore. A small boat bears the passenger through a considerable surf and lands him on rough, jagged rocks of hardened, but where the sun touches them, still flowing pitch.

The village of La Brea stands on a projecting tongue of land which owes its preservation from the inroads of the sea to the fact that it consists entirely of hardened pitch, which withstands the waves far better than the loose materials of the accompanying formations. The shore for miles both north and south consists mainly of the same material and juts boldly out into the sea wherever it is thus pitch-bound.

The village itself is built upon pitch. The inhabitants complain that their dwellings are liable to be thrown out of level by the rising or sinking of the tarry foundations.

Gardens and fruit trees flourish in the few inches of soil which cover the bitumen.

A road leads up from the landing to some sugar estates beyond the lake. It ascends a gentle slope of hardened pitch, which, where left to itself, is covered with a dense growth of reeds and bushes, but where broken up by cultivation produces abundantly the usual tropical garden fruits.

In some places the bitumen is so mixed with earth as to lose some of its toughness as well as some shades of its pitchy hue.

Just above the village, in a small clearing, some twenty graves are marked by black crosses and still blacker mounds. They are excavated in the same somber-tinted material. It would be interesting to know whether the bituminous matter has exerted any of its well-known preservative powers upon the bodies thus entombed in it; but I could not learn that either accident or design had ever invaded any one of these strange sepulchers.

The road itself is a fine illustration of the adaptation of the pitch to the purposes of paving. Where too much mixed with earth it has become pulverized to the depth of a few inches, but in many places it is still so pure and solid that the wheels of heavily-loaded sugar wagons and the hoofs of horses make but a slight, and even that a transient, impression.

In no part of the ascent from the shore of the lake does the stream of pitch appear to be covered by more than 1 or 2 feet of soil, while in most places it is entirely bare. Its hardness is about that of gypsum. It breaks with a conchoidal but lusterless

fracture. In places where the surface is not protected by vegetation it becomes so far softened by the sun as to be still making progress downward.

On nearing the lake the ascent becomes steeper, amounting to perhaps 25 feet in the last 10 rods. Here the pitch is bare, or but slightly covered with grass. Its appearance is not that of a sudden simultaneous overflow in a single smooth stream, but that of a great number of streams each but a few yards or rods in breadth.

These independent streams have jostled one another strangely in their progress. Their surfaces are wrinkled and drawn out into all manner of contortions, and where the edges meet small ridges have been thrown up and the pitch broken into fragments not unlike the scoriæ of lava currents. These fragments of pitch were on fire in several places, having been kindled by a fire which ran through the "bush" a few weeks before. It is fortunate that the pitch when compact will not kindle, or in other words will not burn without a wick, for otherwise the entire region, including the village of La Brea, might suffer the fate of Sodom and Gomorrah.

The distance from the landing to the lake is three-fourths of a mile, the rise 96 feet.

The direction of the principal stream from the lake is due north.

On ascending the last slope of this pitchy glacier a singular scene meets the eye. A black and circular plain of pitch half a mile in diameter lies flush with the edge of the stream. It is surrounded by a dense wall of forest in which various species of tall palms are most conspicuous.

The lake itself is entirely bare of vegetation, except about twenty small clumps of trees which are arranged in sort of broken circle about half way from the center to the circumference.

On a closer inspection the entire surface of this circular plain is seen to be intersected by a network of water channels. Its appearance is exactly that of marbled paper. The pitch is divided into flat or slightly convex areas mostly polygonal but sometimes circular. They vary from one to eight rods in diameter. The intervening spaces are full of water. At the time of my visit, which was in the month of May and just at the close of the dry season, the water was so far reduced that it was easy to pass over all parts of the lake by leaping the channel. At other seasons this is more difficult.

These channels have heretofore been described as crevices or cracks in the pitch. This description is, however, incorrect for the material, though apparently almost as hard as stone, is yet far too plastic to admit of anything like a fissure remaining open in it. Excavations from which many tons of pitch have been taken for exportation are closed up again in the course of a few days or weeks, not by streams of pitch flowing into them but by the gradual closing in of the sides and bottom.

The channels are produced and maintained by the following singular process. Each of the many hundred areas into which the lake is divided possesses an independent revolving motion in this wise. In the center of the area the pitch is constantly rising up—not breaking out in streams, but rising *en masse*. It is thus constantly displacing that which previously occupied the center and forcing it toward the circumference.

The surface becomes covered with concentric wrinkles, and the interior structure somewhat laminated, while the upper laminae at the center of the area are torn into shreds by the expansion like the outer bark of a rapidly growing tree.

Where the edge of such an expanding area meets that of the adjoining one the pitch rolls under, to be thrown up again in the center at some future period. The material is rarely soft enough to meet and form a close joint at the top, but descends with a rounded edge and at a considerable angle.

The spaces thus left between the different areas are often 5 or 6 feet deep and 3 or 4 yards wide at the top, diminishing of course to a mere seam at the bottom.

Where three or more of them meet a star-shaped cavity is formed, in some cases 12 or 14 feet deep.

It is difficult to conceive of a motion like this going on in a material almost of stony hardness, but that such a revolution is constantly taking place over the entire surface of this lake can not be doubted.

Another curious proof of it is afforded by numerous pieces of wood which being involved in the pitch are constantly coming to the surface. They are often several feet in length and 5 or 6 inches in diameter. On reaching the surface they generally assume an upright position, one end being detained in the pitch while the other is elevated by the lifting of the middle. They may be seen at frequent intervals all over the lake standing up to the height of 2 or even 3 feet. They look like stumps of trees, protruding through the pitch, but their parvenu character is curiously betrayed by a ragged cap of pitch which invariably covers the top and hangs down like hounds ears on either side.

The conclusion then to which a close observation leads us in regard to the present condition of this singular lake is, not that it has suddenly cooled down from a boiling state as heretofore described, but that, solid as the material is, it is still boiling



although with an indefinitely slow motion. As the descent of the glaciers may be considered the slowest instance of flowing in nature so the revolutions of the scarcely less solid bitumen of this lake may be set down as the slowest example of ebullition.

The water which fills the crevices of the pitch is clear and very pure, especially towards the margin of the lake. It is the favorite resort of all the washerwomen for miles around.

So completely does the lake occupy the summit of the peninsula on which it is situated that water was observed flowing from the connected network level at eight nearly equidistant points of the circumference.

As the water is flowing now the pitch has formerly flowed from the lake in nearly all directions. It covers almost the whole peninsula like a mantle, reaching down to the sea and forming almost 3 miles of coast. The entire surface covered by it is estimated at 3,000 acres. The lake itself contains 100 acres. At the village of La Brea the stream of pitch has been dug through in several places, averaging from 15 to 18 feet in depth. Its depth at other places is not known.

Towards the center of the lake several detached areas are met with which are still quite soft. These have a glossy black surface. None of them are more than 2 or 3 rods in breadth. Those adjoining are rough and hard, though not as hard as those nearer the margin.

The surface of these softer areas yield under the feet. On standing a few minutes one feels that he is gradually settling down, and in the course of ten or fifteen minutes he may find himself ankle deep.

In a few places, indeed, where streams of fluid pitch were oozing through the more indurated surface, a few minutes standing would sink one to the knees.

The pores of the pitch are full of water, which oozes out on the slightest pressure, and by moistening the skin prevents adhesion.

Were it not for this the above experiment would not be altogether so safe or agreeable.

A heavy body placed on the pitch or a person standing long enough would undoubtedly sink and perhaps disappear in it; but in no place was it possible to form those bowl-like depressions around the observer as described by former travelers. It may be that the material has become much harder since the first accounts of it were written; but it is difficult to understand how the weight of a man could ever have displaced a mass of pitch equal to a "great bowl" as deep as the shoulders, especially as the pitch is specifically much heavier than the human body.

The water in the vicinity of the soft pitch is colored dark green by carbonaceous matter. It has also a saltish taste and a disagreeable odor. A strong smell of bitumen is perceivable in the air.

Streams of gas issue from below, sometimes rising through the water, but more frequently hissing and gurgling from small openings in the pitch above water level. It appears to be chiefly sulphuretted hydrogen, smelling strongly of that gas and instantly blackening a silver coin laid among the bubbles. When inflamed it burns with a pale yellowish flame.

The surface of the pitch is whitened in places by a deposit of sulphur.

The temperature of one of the streams of gas was  $97^{\circ}$  F., the highest heat which I observed upon the lake.

The water in some of the crevices was  $95^{\circ}$ . In such cases it appeared to be rising at one end of the opening, flowing along, and descending at the other.

I have no doubt that the mere surface of the pitch is sometimes heated by the sun to a higher degree than this. But the copious streams of gas would certainly indicate the fact if a much higher heat existed at a moderate depth below.

The pitch, where most fluid, has a temperature of only  $95^{\circ}$ .

It is evident that the bitumen does not owe its fluidity in any great degree to heat. It is true that the already hardened pitch may be melted by a sufficient heat, but that which is already fluid remains so at all ordinary temperatures.

Wherever it oozes out in streams it flows down over the hardened surface into the nearest channel of water (which may have a temperature not above  $85^{\circ}$ ), where it creeps along the bottom in a stream that looks like a huge serpent.

The fluidity of the pitch is evidently owing to the oily matter which it contains. The whole thing seems more like a vast fountain of coal tar than anything else. The gradual hardening which has evidently taken place is due to oxydation and evaporation of the less fixed ingredients, a process which the revolving motion heretofore described must greatly facilitate.

In one of the star-shaped pools of water, some 5 feet deep, a column of pitch has been forced perpendicularly up from the bottom. On reaching the surface of the water it had expanded into a sort of a center table about 4 feet in diameter but without touching the sides of the pool. The stem was about a foot in diameter. I leaped out upon this table and found that it not only sustained my weight but the elasticity of the stem enabled me to rock it from side to side. Pieces torn from the edge of



this table sank readily, showing that it had been raised by pressure and not by its buoyancy.

The vicinity of the pitch with its strong odor seems to give no more offense to animals than its presence in the soil does to vegetation. Numerous fishes 10 or 12 inches long were seen in the water of the lake. An alligator shuffled off from one of the areas at my approach. In two instances I scared birds resembling night hawks from their nests or rather from their eggs, which were deposited upon the naked pitch.

In the course of several days spent in examining the lake and the region around it I walked several miles along the seashore both to the northward and to the southward of the lake. To the southward the shore is made up of bold cliffs upon which the sea is making rapid inroads. The strata consists of indurated clays of brilliant red and yellow colors. They present also thick veins of porcelain jasper.

Strata of loosely coherent sandstone also abound. These are more solid and durable where they are impregnated with bitumen, which acts as cement. Rounded pebbles of pitch and porcelain jasper form a beach at the foot of the cliffs.

About a mile and a half south of the lake I observed numerous beds of slightly indurated clay filled with the remains of leaves and vegetation. A little farther on appears a bed of brown coal and lignite about 12 feet thick. It has such a dip and direction that if continuous it would pass under the lake at a great depth. But the strata are here much contorted and some even thrown into upright positions.

Pebbles of pure asphaltum are thrown up by the waves at this point, and not far off the beach is blackened by brilliant titanitic iron sand.

Nearer the lake and to the southwest of it, a large spring of petroleum breaks out under the sea. The escape of gases from this vent is sometimes so violent as to spout a column of water several feet high.

I passed over the place in a boat, but at the time there was no ebullition, although a strong odor of bitumen pervaded the sea breeze and acres of the sea were iridescent with the floating oil. The rocks on the beach opposite were varnished of a bright, glossy black by the petroleum. I filled a bottle with it by skimming it up from the water with a palm leaf.

Many springs of petroleum occur in the interior within a few miles of the lake. Two veins of pure asphaltum, inclosed in clay, were discovered about three-fourths of a mile from the same place. They were soon, however, exhausted, having yielded some 20 tons of the mineral sufficiently pure for varnishes.

From the point where the large spring of petroleum breaks out under the sea at least 3 miles of the shore to the northward consists mainly of streams of pitch from the lake. There are a few intervals of sandstone and clays, where elevations have diverted the bituminous currents. But all the most prominent headlands are those which are defended by the indurated pitch. This material has in fact flowed out to a considerable, though as yet unknown, distance under the sea.

About a mile to the northward of the lake another bed of brown coal crops out upon the shore. It is about 20 feet thick. Other and perhaps much thicker beds may exist in the vast mass of stratified materials which make up the bulk of the island.

From the occurrence of such considerable accumulations of vegetable matter so situated as apparently to pass under the lake it seems reasonable to regard them as the source of the pitchy matter which rises in such quantity there.

Indeed, many pieces of wood may be observed in the beds of brown coal, which differ in no respect in their appearance from many of the pieces thrown up in the lake itself.

These beds of vegetable matter are probably undergoing a slow distillation by volcanic heat. It is true that there are no evidences of volcanic eruptions in the vicinity of the lake nor any materials of volcanic origin scattered on the beach, except, perhaps, the titaniferous iron sand. But at Cedras, 20 miles to the southward, there are active mud volcanoes. I did not have opportunity to examine them or to ascertain their character minutely. But the fact of their existence, as well as the disturbed condition of the recent strata, together with the proximity of the island to the coast of Cumana, where earthquakes are frequent and severe, appear sufficient to show that the island is not entirely free from volcanic action.

Various attempts have been made to apply the inexhaustible store of bitumen afforded by the lake to some useful purpose. Mixed with sand and pebbles, it is much used for pavements and the ground floors of houses at Port au Spain, a purpose for which it is admirably adapted.

It has been employed to advantage as fuel by the American steamers plying on the Orinoco. It is thrown in the furnaces among the wood, fusing too readily to be used alone.

With 10 per cent of rosin oil it forms an excellent pitch for vessels.

The earl of Dundonald has purchased a large tract of the pitch lands, including 26 acres of the lake, and has instituted various experiments with the view of substitut-

ing the bitumen for India rubber and gutta-percha in the manufacture of waterproof fabrics, covering of telegraph wires, etc. Judging from the specimens of waterproof cloth, tubing, and telegraph wire which were shown me by his agent at Port au Spain (Mr. C. F. Stollmeyer), these efforts bid fair to be quite successful.

It seems only necessary that the required amount of intelligent enterprise should be directed to the subject in order to render this wonderful reservoir of bitumen a source of great individual profit and of essential service to mankind.

DEPARTMENT OF PUBLIC WORKS,  
OFFICE OF THE CONSULTING ENGINEER ON PAVEMENTS,  
*No. 31 Chambers Street, New York, January 7, 1892.*

Hon. THOMAS F. GILROY,  
*Commissioner of Public Works :*

DEAR SIR: \* \* \* Careful observations have been made of the asphalts laid during the past three years to ascertain their comparative durability and slipperiness, and what improvements, if any, could be made in the present methods of laying asphalt pavements. Two kinds of asphalt pavements have been laid, the Sicilian rock and the Trinidad, the former 2 inches and the latter 2½ inches thick, as required by the specifications. The Sicilian pavement on Madison avenue between Thirty-second and Sixty-sixth streets; Sixty-sixth and Seventy-fifth streets from Eighth to Ninth avenue, and Forty-eighth street from Madison to Fifth avenue, were examined and found to be from one-quarter to one-half inch less in thickness than when first laid. Examinations were also made of the same kind of pavement on Forty-seventh, Sixtieth, and Fifty-seventh streets from Madison to Fifth avenue, Sixteenth street from Avenue A to East River, and several other streets. The pavements on these streets were found to be not quite up to the required thickness. This decrease in thickness is due to compression.

Examination of the Trinidad asphalt pavement on all the streets paved therewith showed a depth or thickness exceeding that specified, except on Madison avenue from Twenty-third to Thirty-second street, and on Chambers street, where the pavement was not quite so thick. It may be stated that the latter two streets were paved before the advent of the present administration.

The Sicilian pavement was found to be thinner in the center of the carriageway than toward the gutters, and to a lesser extent the same condition was observed in the Trinidad pavement. In both cases this diminution in thickness is due to the compression caused by the greater amount of traffic on the central portions of the streets. The Sicilian pavement does not attain its ultimate compression until it has been subjected to actual traffic for several months or longer, while the Trinidad pavement attains its final compression as soon as laid. In anticipation of the loss in thickness produced by the greater compression to which the Sicilian rock asphalt is subject, this pavement was laid to an additional thickness of two-fifths of the specified depth before compression. This is not sufficient for the traffic on our streets, and I would recommend that in future this pavement be laid to such a thickness as will give a depth of 2½ inches when it reaches its ultimate compression.

In noting the comparative slipperiness of the two kinds of asphalt pavements, that of the granite on Fifth avenue was also observed, and found, in damp or foggy weather or when covered with damp street dirt, quite as slippery as the asphalt pavement under the same conditions, and only less slippery by the foothold the sharp toes and calks of horses' shoes obtain in the joints of the stone blocks. I find the Sicilian pavement much more slippery than the Trinidad. This difference is particularly observed on Madison avenue, where there are long sections of the two kinds of pavements. These pavements were laid with the greatest care. The Trinidad has been down four years, and the Sicilian one and two years. Both pavements have worn equally well, but the Sicilian has compressed more than the Trinidad. The greater slipperiness of the Sicilian asphalt pavement, as compared with the Trinidad, is due to the difference in the composition of the two pavements. The sharp sand constituting the body of the Trinidad gives a better foothold for horses than the smooth and impalpable limestone forming the body of the Sicilian rock pavement. I know of no way to make the rock asphalt pavement less slippery.

The failure of a portion of the Eighth avenue asphalt pavement laid in the fall of 1890 was due to the use of asphalt from the village plots of La Brea, on the Island of Trinidad, instead of from the Pitch Lake. The asphalt used in this work was submitted by the contractor and analyzed and approved by chemical experts. Within a few weeks after the pavement had been laid, and before its acceptance, part of it showed indications of disintegration. Examinations were made by this department in conjunction with experts and chemists of the contractor, and resulted in this department requiring the contractor to take up and relay all the defective



parts. This was partly done during the past summer, and will have to be completed before the work is finally accepted. The comparative failure of this pavement was exceptional, and as chemists and experts were unable to account for it, it was decided to lay no more pavement of this character until the cause of the comparative failure was determined. Investigation led to the belief that inferior asphalt had been used in this work, and to satisfy yourself on this point you directed me to continue the investigation, and to personally examine the different deposits of asphalt on the Island of Trinidad as soon as the season would allow. In compliance with your instructions of October 26, 1891, I proceeded to the Island of Trinidad and made a careful inspection of the several mines that have furnished asphalt used in the pavements of this city.

Asphalt is found in different parts of Trinidad, but only in the district of La Brea (Spanish for "the pitch") is it found in sufficient quantity for commerce, or of a quality suitable for street pavements. The wonderful Pitch Lake is situated there, and also with the extensive deposits of "iron pitch" and "land pitch" on the slope between the lake and the Gulf of Paria.

The lake is about 1 mile from the sea, at an elevation of 138 feet, and contains 115 acres. It is quite circular in shape and the outlines are well defined. On the south the land rises gradually from the lake, and on the three other sides the land slopes uniformly from the lake to the sea.

The surface of the lake is not level. It has an inclination of a few inches in one direction, sufficient to drain off the frequent rainfalls. Besides this slight inclination, the surface has a fall of a few inches from the center toward all sides. Another and distinct characteristic is that the surface is not flat and even, but is formed of irregular, oval-shaped, flattened domes, or slightly convex surfaces, separated by channels of water a few feet wide and a few inches deep, flowing toward outlets. There are several small islands, from 50 to 60 feet in diameter, scattered over the surface of the lake, and resting on the asphalt itself. These islands have sufficient depth of soil to support the growth of quite large trees. The whole appearance of the lake is very odd, strange, and difficult to describe. In color it is a dark chocolate-brown, and looks very like a patch of mushrooms flattened out and pressed closely together, separated only by the narrow and shallow channels of water already described. In the center of the lake is a space of several hundred square feet of soft fluid asphalt. This is the celebrated "pitch" or "boiling spring." Here the temperature is colder than in the solid parts of the lake. The appearance of boiling is due to the escape of large volumes of sulphuretted hydrogen gas, which keeps the liquid mass violently agitated. This "spring" is commonly, but erroneously, thought to be the source of supply. In fact it is the last of the asphaltic deposits, and is ages more recent than the deposits of "iron" and "land pitch," and much more recent than the solid part of the lake itself. This very fact should prove conclusively that the lake has never overflowed to form the deposits outside it, and that these deposits of "iron" and "land pitch" had no such origin.

The surface of the lake is sufficiently firm to support the weight of loaded carts. The asphalt is mined for commerce from different parts of the lake to a convenient depth of about 3 feet. It is easily excavated with picks, loaded directly into carts, and hauled to the shore ready for shipment. A marked peculiarity of the Pitch Lake is that the pits or excavations made during the day fill up during the night, and in a few days no trace of them can be found. This is due to the great viscosity of the lake asphalt, and is one of the features which distinguishes it from all other asphalts found in this district. On the slopes from the lake to the sea and beneath the sea itself are found the vast deposits known as "iron" and "land pitch." The greater part of these are covered with several feet of earth, supporting a dense tropical forest growth. The village of La Brea is over these deposits, the houses and streets resting directly on the pitch itself. These deposits are known by American dealers as "overflow pitch," but the inhabitants and geologists term them "iron" and "land pitch." The asphalt from these deposits varies in color from gray to black. The "iron pitch" exists in extensive compact masses or detached deposits, and is extremely hard and brittle and almost black in color. The "land pitch" is found mixed with more or less dirt and foreign matter, and varies in color from gray to black. Both kinds are mined from the village lots and from deposits on both sides of the road leading from the village to the lake. The village plots are the ordinary size village lots and are generally occupied by the cabins of the owners, who either mine the deposits themselves or lease them to others for mining. The asphalt is carted to the shore and piled in heaps ready for shipment, which is almost exclusively to the United States, as the accompanying table of exports will show. The cargoes are often made up of asphalt mined from several different deposits.

This accounts for the great variety met with in the same shipment. I noticed one pile made up in this way, and adjoining it a pile of "lake" asphalt. The difference in the two was very marked. The pile of "land" and "iron pitch" was of a variety



of colors, from gray to black, lusterless and brittle, and mixed with earth and decomposed asphalt. This latter feature was owing, no doubt, to careless sorting and "cutlassing," as the cutting and trimming of the decomposed surfaces of the deposit is called. The pile of asphalt from the lake was bright and uniform in color. Another peculiarity of the "iron" and "land pitch" is that when excavations are made the walls of the remaining asphalt do not run in and fill up the excavation. The angles and projections only are rounded off and softened by the sun's heat. This shows that these kinds flow but slowly, if at all, and in this respect are very different from the lake deposits.

The different asphalts found on the island of Trinidad have, undoubtedly, a common origin. Geologists, however, differ on this point. Messrs. Wall and Sawkins, Government geologists, hold that the asphalts are of vegetable origin, and formed in the same way as peat and coal. In this opinion most geologists agree. Others claim that the asphalts are of volcanic origin, and some hold that the source is to be found on the mainland of South America opposite, where there are found vast deposits.

The Government geologists, in their report of 1860, page 139, describe the asphalt found on the island of Trinidad as three kinds: "Glance, which is rare and very brittle, and but little used; asphaltic oil, found in very small quantities and of poor quality; asphalt proper, containing from 20 to 35 per cent of earthy matter, preserving its elasticity, which, however, gradually disappears on long exposure to sun and atmosphere. This is a very essential characteristic, to which many phenomena exhibited are attributed."

On page 142 of the same report, the geologists say: "La Brea Point is lined with masses of asphalt, derived from blocks and fragments of bituminous strata scattered about. The surfaces of these masses consist of brown, porous, sandy earth, which occurs extensively about La Brea, and is evidently the mixed residue of the substance. This shows that there is not only a removal of the volatile constituents, but also an expulsion and perhaps oxidation of the fixed carbon. These remarks refer to the bituminous materials scattered over the La Brea district, and especially to that between the village and the lake, from streams that have issued at some former epoch."

On page 143, the geologists explain the peculiar wave or furrow appearance on the road between the lake and the village. "This ridging and furrowing are not evidence of flowing, but are due to constant expansion and contraction (due to the difference of temperature, which is often as great as 100 degrees in one day) and to the effects of traffic. This, some parties choose to believe, is evidence of the lake overflowing."

I shall leave the question of the origin of the asphalts for the geologists to decide, and confine my investigation solely with a view to determine the properties and characteristics of the different kinds of asphalt, and which will make the most durable pavement.

I collected and brought home with me samples of asphalt from different mines in the La Brea district, which are fair samples of the different deposits. These I submitted to Messrs. Ricketts and Banks, chemists, School of Mines, Columbia College, for analyses. The samples were submitted by numbers only. The following report shows the nature of the asphalts:

"NEW YORK, January 2, 1892.

"THOMAS F. GILROY, ESQ.,

"Commissioner of Public Works, 31 Chambers Street, New York:

"DEAR SIR: We have completed our tests of the nine samples of asphalt submitted to us by consulting engineer, Mr. Stevenson Towle, with instructions to report to you, and we have now to report as follows:

Mark on sample.	Matter extracted, carbon bisulphide (bitumen).	Character of the mineral matter.	Melting point.	Oils at 400° F.
	Per cent.		° F.	Per cent.
No. 6085, No. 5.....	48.89	Chiefly silica, alumina, oxide of iron and lime.	245	1.88
No. 6086, No. 6.....	49.63	do .....	165	1.32
No. 6087, No. 7a.....	52.10	do .....	160	3.55
No. 6087, No. 7b.....	50.12	do .....	160	2.91
No. 6087, No. 7c.....	49.73	do .....	160	2.27
No. 6087, No. 7d.....	53.77	do .....	160	4.16
No. 6088, No. 8.....	48.27	do .....	170	1.72
No. 6089, No. 9.....	46.32	do .....	250	2.29
No. 6090, No. 10.....	45.08	do .....	185	0.48

"As the percentage of moisture in the sample is constantly varying, we have made all of the above determinations on the dry samples.

"Very truly yours,

"RICKETTS & BANKS.

"P. S.—Samples No. 6087 (No. 7a, No. 7b, No. 7c, No. 7d), No. 6088 (No. 8), No. 6089 (No. 9), and No. 6090 (No. 10) were also marked 'Trinidad asphalt.' Sample No. 5 is from Hadley's heap, and from excavation adjoining village lot No. 76. Sample No. 6 is from Dos Santos mine. Samples Nos. 7a, 7b, 7c, and 7d are from different parts of the Pitch Lake. Sample No. 8 is from Ferieras's heap, village lot No. 22. Sample No. 9 is from Roman Catholic Church lot. Sample No. 10 is from Hadley's mine, Crown Lands."

It will be seen from the report that there is a difference of 3.80 per cent in the bitumen contained in the respective samples. A marked difference in the softening points will also be observed, the variation being as great as 90° F. In asphaltic oil there is a difference of 3.68 per cent. These differences are in favor of the lake asphalt, which contains a much larger quantity of bitumen and asphaltic oil than the samples of the other deposits, and will require the addition of less residuum oil in preparation of asphaltic cement for street pavements.

In my judgment, asphalt showing a deficiency of asphaltic oil is not suitable for pavements, as deficiency in that oil detracts from the durability of the asphalt.

The analyses also show that the asphalts containing the least asphaltic oil have the highest softening point, and are consequently harder and more brittle than asphalts with a lower softening point and correspondingly greater elasticity, which latter quality paving experts consider essential, as it gives the pavement the necessary adhesiveness.

Trinidad asphalt is extensively used in Europe in the pavement of sidewalks, and a condition in the specifications for such work is that the asphalt shall be "viscous and not brittle under ordinary temperatures."

The following table furnished by Mr. John Fanning, collector of customs, port of Spain, shows the quantities of asphalt exported from Trinidad:

*Statement prepared by John Fanning, collector of customs, showing quantity of pitch exported from the Island of Trinidad during 1888, 1889, 1890, and to September 30, 1891.*

Year.	From pitch lake.				From land other than pitch lake to—			
	United States.		Other countries.		United States.		Other countries.	
	Raw.	Refined.	Raw.	Refined.	Raw.	Refined.	Raw.	Refined.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1888.....	24,480	504	8,290	9,308	5,020.287	1,905	600½	1.810
1889.....	46,690		10,186	8,932	9,247	2,042		
1890.....	38,520		13,221	9,760	16,460	880		
1891.....	45,170		8,466	8,394½	10,450½		127	

It will be seen from the foregoing table that nearly the whole quantity of asphalt exported to Europe was from the Pitch Lake, viz:

Tons raw .....	40,163
Tons refined .....	36,394
Total .....	76,557

From outside the lake:

Tons raw .....	728
Tons refined .....	1.8
Total .....	729.8

This large proportion of lake asphalt exported to Europe would indicate that the lake asphalt alone meets the requirements of foreign specifications.

The table also shows that 41,177 tons of raw and 4,827 tons of refined asphalt, taken from lands outside the lake, were imported into the United States, the greater part having been used in pavements.

The lake asphalt is mined and exported exclusively by the Trinidad Asphalt Company, and is imported into the United States by the Barber Asphalt Paving Company, the Warren-Scharf Asphalt Paving Company, and the Cranford Paving Company.



Asphalt from the deposits outside the lake is mined by different parties and imported into the United States for pavements, principally by George Christall, James Brand, the Trinidad Paving Company, the Matt Taylor Paving Company, and the West India Asphalt Company.

The asphalt mined from the Pitch Lake is a merchantable commodity, and can be easily purchased by those desiring to do so and willing to pay the price. The additional export duty on lake asphalt is only 40 cents per ton, the full duty being \$1.60, and on asphalt from lands other than the lake, \$1.20.

The durability of asphalt pavements depends wholly upon the suitability of the asphalt for the purpose. It must be of such a nature as to permanently and thoroughly cement together, the sand and limestone powder forming the body of the pavement. It must be elastic, independent of the residuum oil required in making the paving cement, and in no degree brittle.

To secure materials that may be relied on to make the best pavements, it is the practice of European engineers to designate in the specifications not only the kind of asphalt to be used, but also to name the mines and companies that will be allowed to furnish the material, and only to receive bids from such contractors as have shown ability to furnish the material required, and have done satisfactory work.

It has been found necessary to follow this practice in this city as to material for rock asphalt pavement, and the same course should be followed with regard to the Trinidad asphalt pavements.

In view of the importance of obtaining the best asphalt, I would recommend that the asphalt from the Pitch Lake at La Brea, Trinidad, be made the standard of quality. This standard is now required by the specifications for asphalt pavements in Washington.

Numerous applications have been received from parties interested in special kinds of pavements for permission to lay samples on trial. These applications have been denied on account of the trouble, expenses, and inconvenience such tests have involved heretofore. To be of practical value these tests must be made on a large scale, and the introducers of new pavements are reluctant to lay sufficiently large areas for the purpose of thorough tests. When such experiments are at an end the city generally has to bear the expense of removing the new and restoring the old pavement.

Among the applicants for new pavements there are many who favor wood. These are persons who have seen the wooden pavements of Europe, and returned home impressed with the idea that this kind of pavement is the only one suitable for such a thoroughfare as Fifth avenue and other similar avenues. Wooden pavements are a very expensive luxury. Their success in Europe is due not only to their expensive construction and careful and costly maintenance, but also to favorable conditions there which do not exist in this country. There the width of the tires of wheels and the manner of shoeing horses are regulated by law, smooth shoes without calks or toes and wide tires to wheels only are allowed. The narrow tires of wheels and the sharp toes and calks of horses' shoes in this country are very destructive to pavements, particularly those constructed with wood.

The people of this city would be unwilling to pay for the luxury of wooden pavements the price London and Paris pays. The maintenance of these pavements alone costs fully 36 cents per square yard per year. Paris has recently made large contracts for laying wooden pavements, and pays for laying and maintenance for a period of seventeen years nearly 80 cents per square yard per year.

Berlin has discontinued the laying of wooden pavements for the reason that they are the most slippery in frosty weather, and not on account of their expense.

Brick pavements are now extensively laid in many Western cities, and their use in this city is very strongly urged by their advocates, who argue that their long use in Holland is a sufficient guarantee of their durability.

There is no doubt as to the long life of brick, and that brick pavements have the advantage of being less noisy than stone and more economical. But the use of brick pavements has been limited to streets subject only to the light travel of former times, and they are not strong enough to withstand the heavy traffic of the present day.

It is claimed that, by a new process of manufacture, a superior brick, equal to stone, is made for paving. This may be true, but I can not advise the laying of this pavement except as an experiment and at the expense of the parties desiring to introduce it.

The asphalt block pavement laid a year ago on Eighty-seventh street is in good order, but until a sufficient time has elapsed to test its durability, I can not advise that any more of it be laid.

The work of laying the new stone pavements has been pushed as rapidly as possible, and with the least inconvenience to business men and the public. The same is true of asphalt pavements.

The great comfort the asphalt pavement has been to occupants of houses on resi-



dential streets is evinced by the numerous demands and applications for more asphalt pavements.

In concluding my report I would again urge the necessity of the legislature giving you, without delay, the authority you have so frequently asked for, to compel railroad companies, gas, steam, electric, and other corporations owning subpavement structures to lay suitable fixtures in conjunction with the laying of new pavements and properly maintain and restore the pavements about their property when necessary. I would also urge that you be vested with authority to lay house drains in advance of new pavements.

Very respectfully,

STEVENSON TOWLE,  
Consulting Engineer.

#### THE INDUSTRY IN WASHINGTON IN 1891-'92.

Under our contracts for the past fiscal year some few points have come up which are of sufficient interest to insert in this report, and our experience has pointed out so much that could be improved upon that new specifications embodying the results of what has been learned in the past few years have been prepared for the contracts for 1892-'93.

#### BINDER.

During the past year the larger portion of the material for the binder course has been prepared with asphalt cement made considerably softer than that for surface. The result has been highly satisfactory, especially in cold weather, and its use has been made compulsory for the ensuing year. The difficulties attending the uncertain nature of the coal-tar cement have thus been avoided, and we have had no occasion to remove any material which had shown insufficient bond.

#### REFINING THE ASPHALT.

During the past year some trouble has been met with in producing entirely satisfactory asphalt cement from the best crude material. Extended experience and observation showed eventually that this was due to "running off" the stills too rapidly, so that the refined material was not at the time of oiling a smooth and homogeneous mass. It was also found that a custom of adding cold oil to the hot refined asphalt prevailed here, which was a faulty one. By extending the length of time used in refining to about one hundred and fifteen hours for each still, and adding the oil at as hot a temperature as the pumps would bear, the difficulties which were previously encountered disappeared and uniform cements have since been produced.

#### OIL.

The heavy petroleum oil in use for making asphalt cement has been made for the Barber Asphalt Paving Company by the Standard Oil Company, largely at Lima, Ohio. The object has been to obtain an oil as free from coarse, scaly, hard paraffins and light oils as possible. The production as yet can hardly be said to have gone beyond the experimental stage, but has nevertheless been an improvement over the old-time residuums. Following are analyses of certain tank cars of oil of representative nature.

#### *Analyses of heavy petroleum oils.*

Number.	Company.	Brand.	Source.	Date.	Flash.	Flow.	Dis- tilled at 400° F. for 10 hours.	Character of residue.
4920.....	Barber.....	Solar .....	Standard Oil Co.	1892. Mar. 12	420	57	2.56	Pulls long.
5016.....	do .....	do .....	do .....	Apr. 13	438	55	1.08	Do.
5022*.....	Cranford ...	Baltimore...	do .....	Apr. 23	280	48	12.44	Soft.
5050.....	Barber.....	Solar .....	do .....	Apr. 26	438	60	.22	Thick granu- lar.
5063.....	Cranford ...	Baltimore ..	do .....	May 11	295	56	10.20	Soft.

\* Commercial residuum not made especially for paving purposes.

In oil No. 5070 from the Standard Oil Company the sulphur was determined by oxidizing the oil with strong nitric acid and potassium chlorate. There was found—Sulphur, .50 per cent; solid paraffin unoxidized, 86.39 per cent.

As I have stated in previous reports, the presence of hard paraffins, which are very susceptible to changes of temperature, becoming soft under the hot summer sun and brittle at or below frost, is undesirable, since they impart to the asphalt cement similar properties and make it liable to scale in winter if made hard enough for summer.

The manufacture of the oil, especially for paving purposes, endeavors to avoid this, and at the same time to remove the lighter oils to the necessary extent without injury to the heavy oil required for use. In our specifications for the ensuing fiscal year it is provided that oil for asphalt cement shall have the following characteristics: Specific gravity,  $17^{\circ}$  to  $21^{\circ}$  Beaume; flash point not less than  $300^{\circ}$  F.; distillate at  $400^{\circ}$  F. for ten hours less than 10 per cent; shall not cease to flow above  $60^{\circ}$ ; shall not require more than 21 pounds, per hundred of refined asphalt, to produce the specified quality of cement.

It will be noticed how different the oil obtained from Baltimore, which is not especially prepared for this industry, is from the other lots.

The presence of so much light oil renders the cement liable to change if it is kept in a melted condition for a length of time and also to lose largely in oiling. With the heavy oils this loss in oiling has been found to be about 2 to 3 per cent.

If, as in some cases, however, the oil is made too heavy and stiff, too large a proportion of it is required to make a cement of suitable consistency. It is necessary, therefore, to have a limit in this direction as well, and one or two lots of oil have not on this account been satisfactory.

With the exertions that are being made, however, it is hoped that an entirely satisfactory paving oil may eventually be obtained.

#### CONSISTENCY OF THE ASPHALTIC CEMENT.

Control of the asphaltic cement has been continued with the penetration machine, and with greater experience in its use our reliance on it, as deceptive readings due to high summer temperatures have been eliminated, has increased.

Records of the character of the cement in use on each piece of work have been made and preserved.

#### ASPHALT IN SURFACE MIXTURES.

The proportion of pure bitumen in all surfaces laid has been determined by analysis, this corresponding practically to two-thirds of the asphalt cement used. The results are as follows, and do not vary largely from previous years:

##### *Per cent of bitumen in surface mixtures.*

Date.	Cranford Paving Co.			Barber Asphalt Paving Co.		
	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.
1891.						
July.....	10.19	11.21	9.49	9.85	10.41	9.35
August.....	10.14	11.31	9.18	10.39	11.01	9.59
September.....	10.11	11.21	9.45	10.12	10.76	9.59
October.....	10.62	10.97	10.30	10.24	10.65	9.50
November.....	10.08	10.67	9.39	9.63	.....	.....
1892.						
June.....	10.89	11.08	10.41	10.40	11.05	9.36

#### REPORTS OF INSPECTION AND RECORD.

The record of quality of material, temperatures, percentages, etc., described in my last report, have been continued, and already in one or two instances their value has become apparent where it has been desirable to explain defects which have appeared after two or three years, and where the cause has been learned from these records. They show that the asphalt industry can be put upon a rational basis, and that when our experience and record has been sufficiently extended there should be no reason why the best results should not be continually duplicated and all errors avoided. There is, however, a great deal to investigate and to learn before this day can be reached, and such an accomplishment demands the employment of the most

skilled labor in all branches of the industry. Our past experience leads me to repeat my suggestion in my report of last year that the line of success will, I believe, lead toward harder cement and more of it.

#### MISCELLANEOUS WORK.

Of the large amount of miscellaneous work the only portion which seems worthy of preservation in this report is an investigation of several lots of sperm oils for the Ordnance Bureau, U. S. Army, the results of which are as follows:

#### SPERM OIL.

At the request of Maj. Geo. W. McKee, commanding Frankford Arsenal, I have examined a number of samples of commercial sperm oil submitted to him with bids. They were named as follows: 4358, pure winter bleached; 4359 and 4360, winter bleached; 4361 and 4362, sperm oil; 4404, sperm oil, New Bedford.

They were examined with the following results:

Number.	Color.	Condition.	Sp. gr., $\frac{15^{\circ}}{C}$ .	Viscosity, $100^{\circ} F$ .	Viscosity, $50^{\circ} F$ .	Temp. rise, $H_2SO_4$ .	Saponification ether residue.	Fat acid.	Total.	Ether residue in alcohol.
4358.....	Bright straw ..	Clear ...	89.40	42	67	57	25.74	68.38	94.12	Soluble.
4359.....	Light straw ...	Clear ...	88.07	38	64	52	37.51	58.79	96.30	Soluble.
4360.....	Pale straw.....	Cloudy ..	88.05	37	58	52	38.00	58.56	97.22	Soluble.
4361.....	Deep amber.....	Clear ...	90.44	45	78	*100	17.08	69.20	86.28	Soluble.
4363.....	Bright straw ..	Trace of water.	88.68	40	64	57	33.41	54.69	88.10	Soluble.
4404.....	Deep straw ....	Fine ....	87.88	37	52	31	46.26	48.44	94.70	Partly soluble.

\*Over.

Pure sperm oil should have a specific gravity of between .875 and .884. Its viscosity should decrease more slowly with increase of temperature than fish oils. It should give a rise of temperature of about  $50^{\circ} C$ ., according to Maumenee's test, with strong sulphuric acid. In saponification it should leave an unsaponifiable residue, soluble in ether, of between 39 and 21 per cent, and should show about 60 to 64 per cent of fat oil. The ether residue should be soluble in alcohol or the presence of mineral oils is to be suspected.

As judged by these standards, oils Nos. 4360 and 4359 are the only ones which can be graded as good; 4404 evidently contains mineral oil, as shown by the residue, partly insoluble in alcohol and the low rise of temperature; 4361 is some substituted cheap fish oil. Nos. 4358 and 4363 are doubtful oils.

#### CONCLUSION.

In conclusion, I would say that the employes of this office have been energetic and able, and deserve my thanks.

Respectfully submitted.

CLIFFORD RICHARDSON,  
Chemist, Inspector of Asphalt and Cements.

The ENGINEER COMMISSIONER, ETC.



## SPECIFICATIONS FOR SEWERS AND SEWER MATERIAL.

## GENERAL SPECIFICATIONS.

The contractor will be held responsible for maintenance for a period of five years after completion of the work.

## SEWERS.

1. The sewers are to be constructed in strict conformity with these specifications, with the drawings furnished, and the lines and levels given by the duly authorized assistant, and the directions given from time to time by the Engineer Commissioner or his agents. The work is subject to such modification as may be necessary during its progress, and in no case will any work in excess of the plans and specifications be paid for unless ordered in writing by the Engineer Commissioner.

2. All railway tracks, water, sewer, and gas pipes, and other duly authorized structures shall be properly supported and protected by and at the expense of the contractor during the construction of the work under or near them, so as not unnecessarily to interfere with their use.

3. The connections with existing sewers and catch-basins shall be made according to plans and directions, and the cost of said connections shall be included in the price per foot for new sewers.

4. Whenever it shall become necessary to extend or relay any part of the house laterals, to insure a proper connection, they must be laid and thoroughly imbedded in concrete, particularly where said laterals cross the old sewers. The old sewer must be closed at each manhole and wherever a house lateral crosses it with brick masonry or concrete, the manhole frames and covers removed, and the manholes filled with earth, thoroughly rammed, to the surface of the street or sidewalk.

5. The contractor will be furnished with the necessary sewer pipe, Y branches and cast-iron manhole tops with covers, the value of which material, actually used in the work, will not be charged against the contractor. He will also be furnished with the cements, vitrified bricks and terra cotta invert blocks required for the work, the value of which will be charged against him, at the rates hereinafter provided.

6. The vitrified bricks, to be used in the inverts of brick and concrete sewers, and the terra cotta invert blocks to be used in brick sewers, will be furnished by the District of Columbia, at one of the property yards, and the rates for the same, viz, \$25 per thousand for vitrified bricks and 50 cents per linear foot for terra cotta invert blocks, will be charged against the contractor. The invert blocks must be laid truly to line and grade and must be well imbedded in mortar, and have full, even, mortar joints, which must be as close as it is practicable to make them.

7. One length of 6 or 8 inch terra cotta pipe shall be built into the arch of the main sewers, at the springing line and Y branches laid in the pipe sewers at such places as are shown on the plan or as may be ordered. These will be furnished to the contractor, at one of the property yards of the District, free of cost, and are to be built into the sewers; the ends projecting from the sewer shall be closed with brick and cement by the contractor.

8. The contractor shall, when required, furnish the inspectors with proper means and facilities for measuring the cement, sand, and stone.

9. All work and material to be paid for shall be measured and determined according to the specifications and the plans and working lines which shall be given.

10. All material furnished and all work done not in accordance with these specifications shall be removed within twenty-four hours after written notice from the Engineer Commissioner, by and at the expense of the contractor, or, in case of his failure to do so, it shall be removed and the cost charged to the contractor and deducted from the amount due or which may become due him.

11. Material to be furnished by the District shall be hauled from the place of storage to the work by the contractor, at his own expense.

## TRENCHES.

1. The ground shall be excavated in open trenches to the necessary width and depth. The horizontal diameter of the sewer at the springing line, including the walls thereof, shall be considered the necessary width for the sewer trench. That portion formed by the invert of the sewer shall be excavated to conform to the external form and dimensions of the same, so that the brickwork on concrete masonry may be bedded thereupon, should the nature of the ground so allow. If the character of the ground met with in excavation is such that the external form of the

sewer can not be preserved, the excavation shall be made as nearly as possible to the external form of the sewer, and the space between the external sewer lines and the bottom lines of the excavation as made, for a width equal to the outside horizontal diameter of the sewer at the springing line, shall be filled with hydraulic cement concrete at the expense of the contractor, the cost of which shall be considered as an incident to the construction of the sewer.

If the material found in the bottom of the sewer trench contains substances decaying or liable to decay, or if, for any other reason, it is, in the opinion of the Engineer Commissioner, unsuitable for a foundation, upon receipt of a written order, it shall be removed to such depth and width as shall be therein directed, and suitable material shall be deposited in its place, which excavation and deposited material will be paid for as extra work. In all cases the utmost care shall be taken to spare the roots of shade trees as far as possible.

2. All irregularities in the bottom or sides of the trench below the center of the sewer shall be filled to the required form with hydraulic cement concrete, made as herein specified, at the expense of the contractor.

3. Bracing and shoring shall be used when necessary. Filling of the trench and removal of timber shall be done in such manner as to prevent the slipping or caving of the sides as the work progresses. If required by a written order to be left in the trench, the bracing and shoring so left will be measured and paid for at a price to be determined by the Engineer Commissioner.

4. Should the exigencies of the work so require, it shall be carried on without intermission upon the order of the Engineer Commissioner.

5. The excavations shall be kept free from water during the construction of the work; no concrete or other work shall be laid in water, and no allowance will be made for pumping or otherwise removing the water. All slides or caving of the sides of the trenches or cuts shall be taken out and back-filled, and no additional price will be paid therefor.

6. The back filling must be brought up evenly to the top of the trench, in layers not exceeding 6 inches in depth, and thoroughly rammed; it being required that not less than double the labor expended in replacing the back filling shall be expended in compacting the same with iron-shod rammers, weighing not less than 12 pounds each.

7. The contractor shall replace all pavements disturbed (excepting asphalt, coal-tar, concrete, and granite-block pavements) in strict conformity with the District of Columbia specifications for that class of pavement; any deficiency in the materials of the pavement when disturbed, either in quantity, quality, or both, must be supplied by and at the expense of the sewer contractor. Asphalt, coal-tar, concrete, and granite-block pavements will be relaid by and at the expense of the District. If, however, such pavements should be injured by the contractor outside the limits prescribed for the trenches, the cost of restoring such excess will be charged against the contractor and deducted from any amounts found due, and he will be required, at his own expense, to maintain the ground surface of the pavement over the line of the trench with the best material obtainable from the excavation until such time as the pavement is relaid. The cost of subsequent repairs of all pavements (whether relaid in the first instance by the District or by the contractor), or of any other work, made necessary within the period for which this work is guaranteed, by after settlement in the filling of the trenches, will be charged against the 10 per centum retained and invested as provided in paragraph 7 of the general stipulations hereto attached; and it is expressly agreed that this fund shall be subject to the control of the Commissioners of the District of Columbia for this purpose.

8. The material from the trenches and that used in the construction of the work shall be so deposited as not to endanger the work or unnecessarily obstruct public travel, and so that free access may be had at all times to all fire plugs and water gates in the vicinity of the work. The surplus earth, as hereinafter indicated, shall be the property of the contractor, and must be hauled away and disposed of by him.

9. The cost of removing the surplus earth shall be included in the price to be paid for the sewer.

10. For the information of bidders, a map and schedule are on file in the engineer department showing the location of the sewers included in the specifications. The right is reserved by the Commissioners of the District of Columbia to lay only such sewers shown on the map and schedule as may seem most necessary for the public benefit, or to add thereto an amount not exceeding 25 per cent.

11. In making estimates, bidders may assume the depth of excavation as being 10 feet to the bottom of the pipe inside for pipe sewers, and 10 feet to the springing line of brick or concrete sewers. These depths are subject to modification, depending on the location and depth of existing sewers. Bidders are required to give a price for excavation and refilling, which price will be allowed in addition to the price bid for the sewer, in case of an increase, or deducted in case of a reduction of the specified depths.



12. No payment will be made on account of rock excavation for which a special order shall not have been given by the Engineer Commissioner prior to said excavation. All excavated material shall be considered as of ordinary character, except rock excavation removed by special order as above. Indurated gravel, disintegrated rock, and materials of a like character, in the opinion of the Engineer Commissioner, will not be classed as rock excavation.

13. The contractor will be required to refill trenches, remove surplus material and supplies, and restore the streets to their original condition with promptness; also to maintain suitable bridges over trenches at street crossings or railway tracks in such manner as to accommodate travel on foot, or by vehicle or train, as shall be directed. Lights and barricades necessary for properly guarding the trenches or other obstructions to travel must be maintained at the expense and risk of the contractor, who shall be liable to the District for all and every damage, public or private, that may occur in connection with his work.

Lamps shall be kept burning at night at both ends of obstructions and at intervals of not more than 50 feet, and when a distance of 500 feet or more is obstructed, the contractor shall employ a watchman to guard it.

14. In sewer construction along a right of way through public or private property, the contractor shall so conduct his work as not to damage said property, and so as to interfere with its ordinary use as little as possible; he shall provide all needful lights and barricades to guard the trenches, and, upon the completion of the sewer, restore the surface as nearly as possible to the condition in which he found it. The contractor shall be held responsible for all damage or accidents due to the building of the sewer along a right of way.

#### MORTAR.

1. Mortar used in this work, except that used for plastering, shall be composed of cement and sand, in the proportion of one part of cement and two parts of loose sand by measure, thoroughly mixed dry, and a sufficient quantity of water afterwards added to form a rather stiff paste; it shall be used within an hour after mixing, and not used at all if once set.

2. All cements used will be furnished by the District at the District cement house, and the cost of the same, at the rates of \$1.25 per barrel for natural cement and \$3.25 per barrel for Portland cement, will be charged against the contractor.

3. Sand used shall be clean, sharp, free from loam, vegetable matter, or other foreign substance. A platform shall be provided upon which the sand shall be placed when brought upon the line of the work.

4. Water used shall be fresh and clean, free from earth, dirt, or sewage.

5. Tight mortar boxes shall be provided by the contractor, and no mortar shall be made upon the street otherwise than in such boxes. Upon asphalt pavements no mortar shall be made or concrete mixed.

6. The thorough mixing and incorporation of all materials will be insisted upon, preferably by machine labor; but if done by hand labor, the dry cement and sand shall be turned over and mixed with shovels by skilled workmen not less than six times before the water is added. After adding the water the paste shall be again turned over and mixed with shovels by skilled workmen not less than three times before it is used.

The inner surface of the circular sewers, from the invert bricks to the springing line, shall be coated with mortar three-eighths of an inch in thickness—of Portland cement, one part; sand one and one-half parts.

The surface upon which this mortar is applied shall be thoroughly wetted before the application of the coat of mortar, which must be well troweled.

#### BRICKWORK.

1. The best quality of whole new bricks, burned hard and entirely through, with true surfaces, free from injurious cracks, and with a crushing strength of not less than 5,000 pounds per square inch, shall be used and must be thoroughly drenched immediately before laying. Every brick is required to be laid in full mortar joints. In no case is the joint to be made by working in mortar after the brick has been laid. Every second course shall be laid with a line, and joints shall not exceed three-eighths of an inch in thickness. The brickwork of arches shall be properly bonded and keyed as directed.

2. The vitrified bricks shall be laid in full mortar joints truly to line, and the joints upon the face of the work shall not exceed three-sixteenths of an inch in thickness.

Brick-work below the springing line, in brick sewers, must be well bedded upon the adjacent excavation, and all spaces existing between the outer lines of brick-work and the excavation must be filled with mortar or concrete as directed, the same to be at the cost of the contractor.



## CONCRETE.

1. Concrete shall be composed of natural cement mortar proportioned and mixed as before described, to which shall be added broken stone, so that the resultant mass shall contain for each part of cement two parts of sand and five parts of stone, all parts by measure.

2. The broken stone shall be thoroughly cleaned from all foreign substances, and shall be screened whenever ordered. Sand, detritus, or any material other than hard angular fragments of stone which will be retained upon a No. 10 screen shall be considered a foreign substance. The stone shall be broken to a size not greater than 2 inches in its greatest dimensions.

A platform shall be provided upon which shall be delivered all broken stone brought upon the line of work.

3. The stone shall be added immediately after mixing the mortar, being first drenched with water. The whole mass shall be thoroughly turned over and mixed until every piece of stone is enveloped with mortar, using only sufficient water to insure the proper incorporation of the ingredients.

4. All concrete masonry must be thoroughly compacted in place. Any superficial evidence of lack of compactness shall be deemed sufficient reason for requiring the removal and replacement of concrete masonry.

Concrete masonry will not be condemned because of the occasional existence of slight surface honey-combing, provided the same does not extend more than one-half inch into the mass; in this case the work shall be made good by carefully filling the void spaces with hydraulic mortar well trowelled in and consisting of one part of natural cement and two parts of sand by measure.

## MANHOLES.

1. Brick manholes shall be constructed in the sewers at intervals of 150 to 200 feet. They are to be of form and dimensions shown on the drawings.

Manholes are to be fitted with cast-iron frames and covers in dimensions, weight, and quality similar to those now used, and the drawings of which are on file in the office of the Engineer Commissioner. These will be furnished to the contractor at one of the District property yards.

2. Each manhole shall be furnished with steps of wrought iron, three-fourths inch in diameter, built into the brickwork as shown on drawings, and conveniently arranged for access to the sewer.

3. Connections for lateral sewers and receiving basins shall be built into the manhole whenever required.

## RECEIVING BASINS.

1. Receiving basins shall be built wherever shown on the plans or ordered by the Engineer Commissioner. They shall conform to the drawings, be built with care, and be made watertight by plastering the interior with mortar composed of one part each of sand and Portland cement, the thickness of the coat of mortar being three-eighths of an inch.

2. The tops of the basins shall be covered with granite or bluestone heads set level with the sidewalk; the stones composing the tops shall be rebated to receive a cast-iron cover similar to the manhole cover of the pattern, "District of Columbia, 1891."

3. Connections of basins with sewers shall be made with 12-inch pipes of terra cotta, laid in hydraulic-cement concrete, in all respects as required for pipe sewers.

## SPECIFICATIONS.

## TERRA-COTTA MATERIAL.

All straight pipe, and the barrels of all branches of 10 inches or more in diameter, shall be ring pipe. The 8-inch and 6-inch pipe and branches shall be of the hub and spigot pattern. The 6-inch outlets of all branches shall be placed at an angle of 45° with the axis of the barrel, and shall be provided with a hub of the usual dimensions. The pipe and branches shall be the best salt-glazed vitrified sewer pipe and shall conform to the following requirements:

Any pipe or branch found to be poorly burned or partially vitrified, or made of improper materials, or which in its length deviates more than one-quarter of an inch from a straight line, or which exhibits angles, sharp curves, or flat places of appreciable magnitude in its circumference, or which, when laid with its ends abutting against those of other lengths having ends squarely at right angles to their axes, fails to make a close joint by more than one-quarter of an inch, or which presents

any palpable defect other than those enumerated in these specifications, shall be rejected.

Fractured pipe and branches shall be carefully examined by the inspector. Sufficient evidence of underburning or of an earthy fracture shall be deemed a cause of rejection of the entire lot of pipe under inspection.

All pipe delivered shall be in lengths of 3 feet and all branches in lengths of 2 feet. With each length of pipe and each branch furnished there shall be delivered a band or ring, not less than 5 inches wide, of material similar and equal in all respects to that composing the pipe and branches. With each branch pipe shall be furnished a stopper, which shall be a simple disk of vitrified clay three-fourths of an inch thick, to fit snugly within the bell end of the 6-inch outlet.

#### PIPE OF CIRCULAR CROSS-SECTION.

At least 60 per cent of every shipment of pipe and branches shall be substantially circular in cross section. No pipe of this class shall be less than the specified diameter by more than 2 per cent. thereof; and no pipe shall be greater than the specified diameter by more than 3 per cent. thereof. The limiting variations for different diameters are as follows, the fractions representing parts of an inch:

[Specified diameter, in inches.]

	6	8	12	15	18	21	24
2 per cent .....	$\frac{2}{16}$	$\frac{3}{16}$	$\frac{4}{16}$	$\frac{5}{16}$	$\frac{6}{16}$	$\frac{7}{16}$	$\frac{8}{16}$
3 per cent .....	$\frac{3}{16}$	$\frac{4}{16}$	$\frac{5}{16}$	$\frac{6}{16}$	$\frac{7}{16}$	$\frac{8}{16}$	$\frac{9}{16}$

#### PIPE OF OVAL OR ELLIPTICAL SECTION.

Not to exceed 40 per cent. of each size of pipe specified will be accepted if of slightly oval or elliptical cross section. The maximum variation from the specified diameter allowed in this class shall not exceed  $2\frac{1}{2}$  per cent. in excess or in deficiency. The limiting variations for this class of pipe are as follows, the fractions representing parts of an inch:

[Specified diameter, in inches.]

	6	8	12	15	18	21	24
$2\frac{1}{2}$ per cent .....	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

#### CRACKS AND SPLITS.

Any crack or portion thereof extending entirely through the pipe or branch at a distance from either end greater than 3 inches shall cause the piece to be rejected.

Any pipe or branch having more than 2 longitudinal fire cracks, or having 2 at either end, or having more than 1 transverse fire-crack, or having 1 crack caused by any other than the process of burning, shall be rejected.

No pipe having a longitudinal fire crack over  $1\frac{1}{2}$  inches long extending entirely through the pipe, or over 4 inches long extending halfway through, or over 7 inches long extending one-quarter way through, or a transverse crack longer than one-tenth of the circumference, shall be considered admissible, and any pipe with cracks exceeding these limits, or being more than one-eighth of an inch wide, shall be rejected. In case of uncertainty concerning cracks not covered by the above specifications, the decisions of the Engineer Commissioner must be obtained and the same shall be final.

#### INSIDE SURFACE OF PIPE.

Blisters, lumps, and other irregularities and variations from a regular and smooth surface on the inside of any pipe or branch, of such character as to offer appreciable resistance to the flow of sewage, or tend to catch floating substances, shall cause the rejection of the piece.

A few small and smooth lumps or unbroken blisters upon the inner surface of a pipe or branch, not exceeding one-fourth of an inch in depth and two inches in

length, shall not reject the piece, if otherwise acceptable. Any lump or blister more than 2 inches in length, or one-fourth of an inch in depth, shall cause the piece to be rejected, as shall any broken blister, lump, or other irregularity which occurs in such a portion of the pipe or branch that, when the latter is laid, the irregularity can not be included within the topmost one-eighth part of the circumference.

#### OUTSIDE SURFACE OF PIPE.

A lump, flake, or blister on the outside of an otherwise acceptable pipe or branch shall not cause rejection, if it is not more than 4 inches long, and in greatest depth does not exceed one-fourth the normal thickness of the piece; provided, that any lump, flake, or blister on the outside surface, which would lie in the topmost quarter of the circumference of the piece when laid, and which exceeds 1 inch in length or one-fourth inch in depth, shall cause the piece to be rejected.

#### VITRIFIED BRICKS.

The bricks to be furnished must possess such qualities in regard to smoothness, hardness, toughness, and durability as to especially fit them for use in inverts of sewers and must be of quality equal to sample on file in the office of the sewer department.

Vitrified invert bricks must measure  $8\frac{1}{2}$  by  $2\frac{1}{2}$  inches on the face and must be 4 inches deep; they must be molded, of tapering shape, the backs being  $8\frac{1}{2}$  by  $2\frac{1}{2}$  inches for one-third the quantity required and  $8\frac{1}{2}$  by  $2\frac{1}{2}$  inches for two-thirds the quantity required; they must be thoroughly hard, well and uniformly burned, and free from warps and fire cracks. Surfaces must be true and corners square. The faces must be well glazed.

Samples must accompany each proposal, and all brick delivered will be strictly held to conform to such sample.

#### TERRA COTTA INVERT BLOCKS.

Invert blocks will be made of the best quality pipe clay, burned to vitrification, conforming in shape and section with plan and in quality with the sample, both of which are on file in the office of the sewer department; they must be well glazed, thoroughly sound, and the wearing surface must be free from blisters, cracks, or other defects. They must be true to line and shape, the greatest allowable variation being one-fourth of an inch. They may be furnished in lengths between  $1\frac{1}{2}$  feet and 2 feet, at the option of the contractor.

#### SPECIFICATIONS FOR CEMENT.

All tests shall be made by the methods and under the conditions prescribed by the committee of the American Society of Civil Engineers, and shall be open to contractors.

All cements will be from time to time subjected to chemical analysis, and must show freedom from any foreign substances or deleterious matter, and that the elements are combined in proper proportion to secure the best results and insure permanency.

#### NATURAL CEMENT.

*[To be delivered in new, strong barrels, to weigh 300 pounds net.]*

(1) *Fineness*.—Not less than 92 per cent to pass through a 50-mesh sieve and not less than 82 per cent through a 100-mesh sieve.

(2) *Time of setting*.—Initial set is not less than 10 nor more than 45 minutes, when mixed with smallest possible amount of water between the temperatures of  $60^{\circ}$  and  $70^{\circ}$  F.

(3) *Tensile strength*.—One day (in air till hard set, rest of day in water), neat 40 pounds; seven days (in air one day, in water six days) neat 70 pounds; two parts sand, 30 pounds; twenty-eight days (in air one day, in water twenty-seven days), neat, 170 pounds; two parts sand, 50 pounds.



PORTLAND CEMENT.

[Barrel to weigh 400 pounds gross, average.]

(1) *Fineness*.—Not less than 95 per cent to pass through a 50-mesh sieve, and not less than 85 per cent to pass through a 100-mesh sieve.

(2) *Time of setting*.—Initial set in not less than one hour, when mixed with water under the same conditions as with natural cement, except where a quick cement is desired, which should set in less than 10 minutes.

(3) *Tensile strength*.—One day (in air till hard set, in water rest of day), neat, 125 pounds; seven days (in air one day, in water six days), neat, 400 pounds; three parts sand, 100 pounds; twenty-eight days (in air one day, in water twenty-seven days), neat, 500 pounds; three parts sand, 150 pounds.

Portland cement shall not contain more than 3 per cent of carbonate of lime, and shall withstand without cracking a temperature of 212° F. after immersion in water for twenty-four hours.



1566	Barnes, L. E.	Monroe street, from Harrison to Jackson street.	24-inch pipe	365.6	1.89	675.37	537.81	50.76	1,263.94
		T street NW, from First street to Le Droit avenue.	18-inch pipe	682.5	1.27	861.72	499.65	63.89	1,425.26
		Grant avenue, from Eighth street to Florida avenue.	do	630.8	1.27	990.97	521.47	73.89	1,586.33
		Ninth street NW, from Florida avenue to Grant avenue.	do	740.1	1.27	950.15	603.28	70.45	1,623.88
		Monroe street, from Jackson to Washington street.	do	310.9	1.27	439.86	242.53	32.61	715.00
		Monroe street, from Harrison to Johnson street.	do	38.0	1.27	330.08	145.95	25.18	510.81
		do	15-inch pipe	210.0	1.27	330.08	145.95	25.18	510.81
1480	Coyle, R. J.	Navy Place, from Nichols avenue to Eastern Branch.	250 by 3 7/8 feet	605.0	5.30	3,504.60		950.63	(1)
		Rockington, main sewer	2 feet diameter	611.0	19.00				

\* Each. † Contract incomplete.



**STATEMENT OF WORK DONE UNDER CONTRACT, CHARGEABLE TO APPROPRIATION FOR CLEANING AND REPAIRING SEWERS AND BASINS, FOR YEAR ENDING JUNE 30, 1892.**

No. of con-tract.	Date of contract.	Contractor.	Location.	Character of work.	Amount dredged.	Contract price per cubic yard.	Cost of work.	Cost of inspection.	Total cost.
1600	Nov. 14, 1891	Morgan, T. P.	Basin, foot of James Creek Canal, SE.	Dredging	Cu. yds. 8,772	\$0.38	\$3,333.36	\$176.00	\$3,509.36

**STATEMENT OF WORK DONE UNDER CONTRACT, CHARGEABLE TO APPROPRIATION FOR SUBURBAN SEWERS, FOR YEAR ENDING JUNE 30, 1892.**

No. of con-tract.	Date of contract.	Name of contractor.	Location.	Size of sewer.	Length of sewer.	Contract price.	Cost of work.	Cost of material.	Cost of inspection.	Total cost.
1476	July 1, 1891	Neitz & Co	Rock Creek Valley, from Sherman avenue, from Steuben to Marshall street.	2.75 by 4.125 feet	Lin. ft. 2,949.0	\$4.30	\$17,436.00	\$31.17	\$1,292.75	\$18,760.01
1468	June 22, 1891	Brennan, P	Alley rear of Four-and-a-half street NW., between Wilson and College streets.	do	720.1	4.30	3,138.24	37.96	232.02	3,408.22
			R street NW., from Twenty second to Twenty-third street.	12-inch pipe	618.5	.98	598.23	221.67	44.37	864.27
			Block No. 1, from Trinidad to Twelfth and M streets NE.	do	204.2	.98	194.84	67.92	14.45	277.21
			Alley between Bacon and Columbia, Fourteenth and Fifteenth streets NW.	do	385.5	.98	297.12	147.86	22.27	467.25
			Block No. 2, Trinidad	do	318.7	.98	311.18	121.40	23.07	455.65
1473	June 25, 1891	McCandlish, Jas.	Four-and-a-half street NW., from Wilson to Pomeroy street.	15-inch pipe	335.0	1.12	278.65	176.67	20.66	475.98
			R street NW., from Florida avenue to Twenty-second street.	do	365.8	1.12	429.17	206.99	31.81	667.97
			Bladensburg road	do	340.3	1.12	367.76	165.79	27.26	560.81
			Sherman avenue, from Howard to Steuben street.	do	1,814.4	1.12	2,307.29	1,031.39	171.07	3,509.75
			Spring road, from Fourteenth street eastward.	3 by 4.5 feet	171.1	6.70	1,147.03	9.49	85.58	1,242.10
			Various localities	4 by 6 feet	838.5	8.78	8,583.68	55.36	636.45	9,275.49
			do	Basins	22.0	*52.00	1,253.85	210.77	121.02	1,963.94
			do	12-inch connections	630.5	.60	378.30			

1566	Barnes, L. E.	Monroe street, from Harrison to Jackson street. T street N W., from First street to Le Droit avenue. Grant avenue, from Eighth street to Florida avenue. Ninth street N W., from Florida avenue to Grant avenue. Monroe street, from Jackson to Washington street. Monroe street, from Harrison to Johnson street. do	24-inch pipe 18-inch pipe do do do do 15-inch pipe 2.50 by 3.75 feet 8 feet diameter	365.6 682.5 630.8 740.1 319.9 38.0 216.9 605.6 911.0	1.89 1.27 1.27 1.27 1.27 1.27 1.27 5.30 12.90	675.27 861.72 990.97 950.15 439.86 339.68 3,501.66	537.81 499.65 521.47 603.28 242.53 145.95	50.76 63.89 73.89 70.45 32.61 25.18 259.02	1,263.94 1,425.26 1,586.33 1,623.88 715.00 510.81 (†)
1480	Coyle, B. J.	Navy Place, from Nichols avenue to Eastern Branch. Eckington, main sewer							

\* Each. † Contract incomplete.

STATEMENT OF WORK DONE UNDER CONTRACT, CHARGEABLE TO APPROPRIATION FOR MAIN AND PIPE SEWERS, FOR  
YEAR ENDING JUNE 30, 1892.

No. of con- tract.	Date of con- tract.	Name of contractor.	Location.	Size of sewer.	Length of sewer.	Con- tract price per lin. foot.	Cost of work.	Cost of material.	Cost of inspection.	Total cost.
1462	June 16, 1891	Talty, M. F. ....	B street NE., from Twelfth street to Tennessee avenue.	2 by 3 feet .....	<i>Lin. ft.</i> 482.8	\$4.80	\$2,548.47	\$23.31	\$234.72	\$2,806.50
1473	June 25, 1891	McCandlish, Jas. ....	Valley street, from Q to U street .....	15-inch pipe .....	615.4	1.12	670.53	314.77	61.72	1,047.02
			H street SW., from Third to Four- and-a-half street.	.....do .....	306.0	1.12	357.90	169.25	32.96	560.11
			M street SW., at Delaware avenue .....	.....do .....	48.0	1.12	51.47	29.65	4.75	85.87
			Third street SW., from F to G street .....	.....do .....	383.9	1.12	420.87	201.66	38.75	661.28
			New Jersey avenue SE., from C to D street.	.....do .....	399.5	1.12	476.71	200.46	43.95	721.12
			I street SE., from South Capitol to One-half street.	.....do .....	429.5	1.12	495.42	222.19	45.60	763.21
			D street NE., at Ninth street .....	.....do .....	36.5	1.12	42.44	15.75	3.90	62.09
			Second street SW., from I to K street .....	.....do .....	319.8	1.12	381.15	171.07	35.10	587.32
			54 receiving basins constructed .....	.....do .....		*52.00	2,808.00			
			Basin connections laid .....	12-inch pipe .....	1,705.5	.60	1,023.30	477.68	354.85	4,682.81
			Extra work .....	.....do .....			18.98			
1467	June 20, 1891	Gleeson, Andrew .....	Fourteenth street SE., from Penn- sylvania avenue to K street.	5.5 feet diameter .....	339.5	9.35	4,743.58	8.89	436.90	5,189.37
1468	June 22, 1891	Brennan, P. ....	Connecticut avenue (east side), from R to S street.	12-inch pipe .....	338.10	.98	338.45	118.76	31.17	488.38
			Eighteenth street NW., from D to E street.	.....do .....	156.60	.98	157.95	60.00	14.55	232.50
			E street NW., from Seventeenth to Eighteenth street.	.....do .....	190.02	.98	229.33	68.26	21.10	318.69
			O street NW., from Twentieth to Twenty-first street.	.....do .....	263.72	.98	247.60	96.58	22.80	366.98
			R street NW., across Eighteenth street.	.....do .....	47.82	.98	46.66	21.73	4.30	72.69
			Vermont avenue NW., from L to M street.	.....do .....	212.56	.98	229.81	73.53	21.20	324.54
			Twenty-first street NW., from R to S street.	.....do .....	286.94	.98	288.52	97.05	26.50	412.07
			Q street NW., from First to North Capitol street	.....do .....	325.95	.98	317.80	118.81	29.25	465.86
			Alley, square 158 .....	.....do .....	363.39	.98	356.92	134.08	32.85	523.85
			Thirty-sixth street NW., from N to O street.	.....do .....	331.83	.98	1,073.25	124.89	98.86	1,297.00
			Valley street, Georgetown .....	.....do .....	528.12	.98	514.40	198.97	47.38	760.75



R street NW., from Thirty-second to Thirty-third street.	193.55	.98	196.51	83.56	18.10	298.17
N street NW., from North Capitol to Second street.	449.13	.98	446.28	232.35	56.70	904.78
First street NW., from North Capitol to New York avenue.	169.25	.98	169.45			
Alley, square 553.	111.53	.98	154.49	49.64	14.20	218.33
N street NW., from Twenty-seventh to Twenty-eighth street.	292.63	.98	321.38	115.34	29.60	466.32
Connecticut avenue (west side), from R to S street.	210.01	.98	211.76	72.66	19.50	303.92
H street SW., from Third to Four-and-a-half street.	219.81	.98	223.56	80.95	20.60	325.11
Virginia avenue SW., from Third to Four-and-a-half street.	431.00	.98	402.48	165.79	37.10	605.37
Third street SW., from E to F street.	226.58	.98	208.81	85.75	19.20	313.76
Second street SW., from G to H street.	586.53	.98	534.81	327.24	68.65	1,141.18
Second street SW., from H to I street.	257.06	.98	210.48	91.36	21.80	349.87
I street SW., from Second to Third street.	236.08	.98	236.71			
Alley, square 587.	292.04	.98	281.31	111.39	25.90	418.60
Alley, square 297.	127.40	.98	117.91	48.29	10.85	177.05
Alley, square 493.	147.00	.98	160.02	57.56	14.75	232.33
Alley, square 582.	196.00	.98	146.12	81.81	13.50	241.43
C street SW., from Fourteenth to Fifteenth street.	240.98	.98	246.81	77.48	22.75	347.04
M street SW., from Delaware avenue to Third street.	229.22	.98	209.93	84.88	19.35	314.16
Virginia avenue SW., from Third to Four-and-a-half street.	172.09	.98	171.29	59.59	15.78	246.66
Seventeenth street NW., from K to L street.	291.36	.98	417.01	94.39	38.40	549.80
K street NE., from Delaware avenue to Second street.	208.94	.98	203.25	79.15	18.70	301.10
Eighth street NE., from G to H street.	271.46	.98	252.21	90.50	23.25	365.96
Twelfth street NE., from G to H street.	480.59	.98	490.80	182.74	45.20	718.74
D street NE., from Fourth to Fifth street.	216.29	.98	216.69	74.84	20.00	311.53
Eleventh street NE., from I to K street.	273.03	.98	256.16	92.68	23.60	372.44
Ninth street NE., from C to D street.	765.97	.98	801.21	297.63	73.80	1,172.64
New Jersey avenue SE., from B to C street.	332.51	.98	366.72	122.26	33.80	522.78
I street SE., from One-half to First street.	391.61	.98	442.62	139.67	40.76	623.05
G street SE., from Eleventh to Twelfth street.	289.59	.98	297.31	109.20	27.40	433.91
I street SE., from Eighth to Ninth street.	262.64	.98	262.63	95.68	24.20	382.51

\*Each.

STATEMENT OF WORK DONE UNDER CONTRACT, CHARGEABLE TO APPROPRIATION FOR MAIN AND PIPE SEWERS FOR  
YEAR ENDING JUNE 30, 1892—Continued.

No. of con- tract.	Date of con- tract.	Name of contractor.	Location.	Size of sewer.	Length of sewer. <i>lin. ft.</i>	Con- tract price per lin. foot.	Cost of work.	Cost of material.	Cost of inspection.	
1468	June 22, 1891	Brennan, P.....	E street SE., from Seventh to Eighth street.	12-inch pipe.....	239.61	.98	\$244.94	\$91.78	\$22.60	\$359.32
			E street SE., from Twelfth to Thir- teenth street.	.....do .....	211.58	.98	209.85	77.90	19.35	307.10
			South Carolina avenue SE., from Tenth to Eleventh street.	.....do .....	150.72	.98	176.81	58.75	16.30	251.86
1479	.....	Coyle, B. J.....	H street NE., from Florida avenue to Eighth street.	6.25 inches diameter.	1,062.75	10.45	36,305.20	79.70	3,343.50	39,728.40
				5.75 feet diameter...	1,229.85	9.70				
				5.33 feet diameter...	317.00	9.00				
				5.0 feet diameter...	345.90	8.45				
1480*	.....	.....do .....	C street NW., from First street to New Jersey avenue.	2.50 by 3.75 feet.....	505.40	5.30	3,324.60	.....	306.18	.....
			Fourteenth street SE., from Pennsyl- vania avenue to G street.	3.75 by 5.625 feet...	346.50	7.30	.....	.....	498.00	.....
1566†	.....	Barnea, E. E.....	Ninth street NE., from Maryland avenue to D street.	18-inch pipe .....	350.7	1.27	458.46	.....	42.22	.....
			O street NW., from Thirty-fifth to Thirty-sixth street.	.....do .....	100.7	1.27	223.35	.....	20.57	.....
			Twenty-seventh street NW., from Olive to N street.	.....do .....	282.2	1.27	380.84	.....	35.08	.....
			Tenth Street NW., from P to Rhode Island avenue.	.....do .....	43.8	1.27	945.05	.....	87.05	.....
			Eleventh street NW., from N to P street.	24-inch pipe .....	434.0	1.89				
			.....do .....	18-inch pipe .....	128.0	1.27	841.48	.....	77.51	.....
			Thirty-second street NW., from S to T street.	21-inch pipe.....	389.4	1.59				
			Seventh street NE., from L to M street.	18-inch pipe .....	97.5	1.27	136.06	.....	12.53	.....
			First street NW., from N to O street.	21-inch pipe .....	110.0	1.50	185.89	.....	17.12	.....
			P street NW., from Tenth to Elev- enth street.	.....do .....	508.7	1.59	858.40	.....	79.08	.....
			.....do .....	.....do .....	131.1	1.59	455.34	.....	41.93	.....
			Thirty-seventh street NW., from M to N street.	24-inch pipe .....	121.4	1.89				
			Fifteenth street NW., from Penn- sylvania avenue to H street.	21-inch pipe .....	569.5	1.59	1,825.43	.....	168.12	.....
				.....do .....	469.5	1.59	801.08	.....	73.79	.....

B street NE., from Eleventh to Twelfth street.	24-inch pipe .....	400.9	1.89	798.36	.....	73.53	.....
Thirteenth street NW., from V to Florida avenue.	.....do .....	904.4	1.89	2,154.29	.....	198.42	.....
M street NW., from Thirty-sixth to Thirty-seventh street.	.....do .....	260.2	1.89	775.68	.....	71.42	.....
I street NW., from Fourth to Fifth street.	.....do .....	441.9	1.89	802.11	.....	73.89	.....
Square No. 491.....	.....do .....	192.6	1.89	365.25	.....	33.64	.....

\*Incomplete.

† Final voucher incomplete.



### WORK DONE BY DAY'S LABOR UNDER VARI

## APPROPRIATIONS FOR MAIN

Location.	Pipe sewers laid (length in feet).								2.25 by 3.375 feet brick sewers.
	6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.	
Delaware avenue and M street SW .....			33						
Louisiana avenue, between Sixth and Seventh streets NW.		114							
Massachusetts avenue and Sixth street (crossing)..... }				102					
Seventh street and Massachusetts avenue (crossing)..... }				57					
C street, at New Jersey avenue and Arthur Place .....				138		33			
E street, between Thirteenth and Fourteenth streets NW.				12					
I and First streets NW .....				30					
I and Second streets SE .....				12					
N, between Thirty-sixth and Thirty-seventh streets NW.						108			
Second and P streets SW .....			63	120			42		
Second and Canal streets SW .....				504					
Third, between F and G streets NE .....				24					
Thirteenth street and Florida avenue NW .....						69			
Eighteenth and G streets NW .....							287		
Twenty-seventh, between M and Olive streets NW .....			3						
Square No. 126 .....			129						
Square No. 175 .....	24	36		107					
Square No. 184 .....				30	94	126			
Square No. 553 .....				3					
Square No. 595 .....			36						
Square No. 666 .....				135					
Square No. 890 .....									
Square No. 907 .....									
Square No. 943 .....									
Square No. 1000 .....									
Square B .....	9							3	195
Total .....	33	150	264	1,274	94	336	329	3	195

APPROPRIATION FOR

Location.	Pipe sewers laid (length in feet).								2.5 by 3.75 feet brick sewers.
	6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.	
Harewood avenue, at interseccion of T street .....									48
Le Droit avenue .....				51					
Columbia and Fourteenth street roads (southwest corner) .....				42					
Trinidad subdivision .....						18			
Rock Creek Valley near P street bridge .....								6	
Total .....				93		18		6	48

## SEWER APPROPRIATIONS, 1891-'92.

## AND PIPE SEWERS.

3 by 4.5 feet brick sewer.	Manholes built.	Branches used.	Basins built.	Cost of ma- terial.	Cost of labor.	Total cost.	Remarks.
			1	\$46.47	\$35.43	\$81.90	
			1	53.86	61.04	114.90	
				48.56	96.57	145.13	
				27.70	64.74	92.44	
	2	3	1	186.54	315.62	502.16	Connecting basins.
			1	37.79	37.70	75.49	
			1	30.62	26.43	57.05	
			2	64.10	72.99	137.09	
			1	111.90	106.64	218.54	
	1		3	202.40	196.74	399.14	
	3	24		343.73	494.24	837.97	
				11.84	18.89	30.73	Connecting trap with main sewer.
				82.47	153.63	236.10	Connecting sewer on G street with new brick sewer on Eighteenth street.
	2	16		476.23	503.93	980.16	
			1	22.59	16.75	39.34	
			1	66.75	71.00	137.75	
	1	4		142.57	242.04	384.61	
			1	25.08	31.75	56.83	
	2	2	2	295.58	257.92	553.50	
			1	24.93	9.50	34.43	
			1	36.80	55.75	92.55	
	1			24.01		24.01	In connection with permit work.
	1	9		99.82	145.57	245.39	
			1	25.09	96.62	121.71	
	1		2	464.19	574.60	1,038.79	
	14	58	21	2,951.62	3,686.09	6,637.71	

## SUBURBAN SEWERS.

3 by 4.5 feet brick sewer.	Manholes built.	Branches used.	Basins built.	Cost of ma- terial.	Cost of labor.	Total cost.	Remarks.
48				\$305.27	\$752.23	\$1,057.50	
		3		28.45	48.42	76.87	
			1	41.68	53.25	94.93	
				13.08	8.80	21.88	
	1			16.79	112.10	128.89	Draining pond. Providing temporary outlet for intercepting sewer.
48	1	3	1	405.27	974.80	1,380.07	

## WORK DONE BY DAY'S LABOR UNDER VARIOUS

## APPROPRIATION FOR RE

Location.	Pipe sewers laid (length in feet).							
	6-inch.	8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
Pennsylvania avenue NW., between Eleventh and Twelfth streets.						264		
Virginia avenue SE., between Sixth and Seventh streets.	12			51				
Vermont avenue NW., between N and O streets.	36			621				
H street NE., between North Capitol and I streets.	12					183		
N street NW., between Fourteenth and Fifteenth streets.	43			115	280	3		
O street NW., between Sixteenth and Seventeenth streets.	18						335	
P street NW., between Columbia and Eleventh streets.	12			97	130			
P street NW., between Fourth and Fifth streets.	18			12	134			
R street NW., between Ninth and Tenth streets.	33			201				
R street NW., between Eleventh and Thirteenth streets.						115½		
S street NW., between Eleventh and Twelfth streets.	18				114			
First street SE., between D and North Carolina avenue.	15			411		41		
First street SE., between E and Virginia avenue.						6		
First street NW., between D and E streets.						15		
Second street SE., between C street and Pennsylvania avenue.	24			330				
Sixth street SE., between B street and North Carolina avenue.	6			43				
Twelfth street NW., between S and T streets.	2			108				
Fourteenth street SW., between C and D streets.	12					385		
Fifteenth street NW., between P and Q streets.	4				25			
Sixteenth street NW., between P and Q streets.	6			204				
Eighteenth street NW., between P and Q streets.	39					300		
Nineteenth street NW., between N and O streets.				44				
Square B.	26			130		198		
Square No. 341.				126				
Square No. 363.	30			89	314			
Square No. 365.					96			6
Square No. 454.	9					12	251	176
Total.	375			2,582	1,093	1,522½	586	182

## CLEANING AND REPAIRING SEWERS

Location.	Size of sewer.				
	6 inch.	12-inch.	15-inch.	24-inch.	4-foot diameter.
Square 339.	8	75			
Sixth street, between I and K streets SE.		3	90	102	135
Eleventh street, between B street and Pennsylvania avenue NW.	72		513		
Georgetown main sewer, northeast branch.					



## SEWER APPROPRIATIONS, 1891-'92—Continued.

## PLACING OBSTRUCTED SEWERS.

Total in feet relaid.	Man- holes built.	Branch- es used.	Basins built.	Cost of material.	Cost of labor.	Total cost.	Remarks.
264	1	9	.....	\$293.98	\$402.73	\$696.71	Not completed.
51	1	3	.....	53.61	129.12	182.73	
635	1	24	.....	363.05	827.38	1,190.43	
415	.....	24	.....	373.41	931.24	1,304.65	
900	1	29	.....	465.65	1,342.63	1,808.28	
345	.....	13	.....	523.88	665.82	1,189.70	
229	1	10	.....	196.88	317.23	514.11	
545	.....	25	.....	275.51	740.61	1,016.12	
475	.....	30	.....	344.30	943.53	1,287.83	
116	.....	.....	.....	117.55	255.86	373.41	
300	.....	7	.....	142.38	509.86	652.24	
452	.....	16	.....	287.24	679.25	966.49	
6	.....	.....	.....	3.60	23.31	26.91	
25	1	.....	.....	37.47	53.74	91.21	
447	1	14	.....	205.44	391.64	597.08	
289	.....	8	.....	67.99	250.00	317.99	
108	.....	9	.....	66.65	196.08	262.73	
389	.....	17	.....	394.72	762.68	1,157.40	
25	.....	2	.....	33.27	92.40	125.67	
563	1	12	.....	224.60	645.23	869.83	
300	1	9	.....	344.23	957.90	1,302.13	
44	.....	1	.....	31.62	246.20	277.82	
328	1	32	.....	337.00	378.74	715.74	
126	1	6	.....	110.41	195.11	305.52	
520	1	35	.....	393.89	1,006.85	1,400.74	
102	1	.....	.....	93.46	276.70	370.16	
439	3	23	.....	452.36	769.59	1,221.95	
8,438	16	358	.....	6,234.15	13,991.43	20,225.58	

## AND BASINS, 1892 (DAY LABOR).

Manholes.	Branches.	Cost of mate- rial.	Cost of labor.	Total cost.	Remarks.
.....	4	\$38.04	\$92.48	\$130.52	
.....	.....	592.66	1,187.31	1,779.97	
4	10	488.87	765.57	1,254.44	
.....	.....	497.46	2,968.38	3,465.84	

## TABULAR STATEMENT OF SEWERS

PERMIT

No. of order.	Location.	Pipe sewers laid (length in feet).							3.75 by 5.625 feet brick.	Manholes built.	Basins built.	Branches used.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.				
33	California avenue (Presby subdivision).			200								10
35	Florida avenue, between Third and Fourth streets, NW.	40		35						1		4
73	Florida avenue, between Linden and Larch streets, NW.	70								1		5
75	Florida avenue, between Thirteenth and Fourteenth streets, NW.			277						1		14
46	Maple avenue, between Juniper street and Florida avenue.			82								2
53	Massachusetts avenue, between First and Second streets, NE.			218						1		13
24	New Jersey avenue, between New York avenue and L street, NW.			84								1
31	New Jersey avenue, between D and E streets, SE.			51								3
51	North Carolina avenue, between Ninth and Tenth streets, SE.	31								1		2
82	New Hampshire avenue, between Dupont Circle and Q street, NW.			31								2
60	Rhode Island avenue, between Fifth street and New Jersey avenue, NW.			78								3
37	Acker street, between Sixth and Seventh streets, NE.		191							2		7
*42	Burleigh subdivision	9							343.3	1		
†12	Eckington Place			825	713	39	402	219		12		97
59	North Capitol, between Pierce and L streets.			85								5
69	C, between Thirteenth and Thirteen-and-a-half streets, SW.			104								7
74	E, between Eighth and Ninth streets, SE.			34								2
28	F, between Second and Third streets, NE.			84								5
81	F, between First and Second streets, NE.			14								1
7	G, between Fourth and Fifth streets, NE.			129						1		6
52	I, between Second and Third streets, SW.			89								7
26	N, between Thirty-third and Thirty-fourth streets, NW.			217						1		8
71	N, between First and Third streets, NW.			327						1		18
27	Q, between Fourteenth and Fifteenth streets, NW.	29										1
30	S, between Seventeenth street and New Hampshire avenue, NW.			96								3
45	S, between Fifth street and New Jersey avenue, NW.			84								3
61	First, between Rand and Randolph streets, NW.			206						1		10
29	Third, between G and H streets, NE.			190								11
44	Sixth, between C and D streets, NE.			97								5
34	Seventh, between G and H streets, NE.			140						1		7
47	Eighth, between B and C streets, NE.			250						1		11
48	Tenth, between F and G streets, NW.			253						2		5
65	Twenty-first, between N and O streets, NW.			117								6
57	Twenty-second, between K and L streets, NW.			14								1
84	Twenty-third, between F and G streets, NW.			104						1		7
56	Twenty-fifth, between M and N streets, NW.	107								3		4
43	Square 14.			251						2		22
39	Square 37.			48								6

\* Constructed under contract No. 1593.

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 517

## LAID UNDER THE PERMIT SYSTEM.

### SEWERS.

Estimated cost of work.	Amount of deposit.	Cost to District of Columbia.	Cost to property owners.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
\$300.00	{ \$25.00 } { 150.00 }	\$175.00	\$175.00	\$350.00	.....	C. W. Handy ....	Ward.....	Sept. 23, 1891
108.75	54.38	53.89	53.90	107.79	\$0.48	Geo. Glorious <i>et al.</i>	Lanigan ....	Sept. 28, 1891
130.00	65.00	63.52	63.52	127.04	1.48	D. B. Gotwals ...	Ward.....	Mar. 5, 1892
448.00	224.00	210.09	210.09	420.18	13.91	Frank T. Brown- ing.	Lanigan ....	Mar. 3, 1892
180.00	90.00	54.61	54.61	109.22	35.39	Chas. V. Trott ..	do .....	Nov. 11, 1891
330.00	165.00	146.02	146.01	292.03	18.99	Chas. A. Mc- Ewen.	Ward.....	Nov. 26, 1891
150.00	75.00	60.42	60.41	120.83	14.59	Wm. A. Kimmel.	do .....	Aug. 20, 1891
100.00	50.00	36.56	36.56	73.12	13.44	Jno. Miller.....	Lanigan ....	Sept. 21, 1891
70.00	35.00	30.73	30.74	61.47	4.26	C. Isdell.....	Ward.....	Nov. 23, 1891
50.00	25.00	23.51	23.51	47.02	1.49	T. F. Schneider..	Lanigan ....	Mar. 23, 1892
120.00	60.00	53.89	53.90	107.79	6.10	H. H. Bergmann.	do .....	Dec. 14, 1891
250.00	125.00	125.00	125.00	250.00	.....	Lizzie S. Carpen- ter.	do .....	Oct. 1, 1891
2,775.00	1,387.50	1,363.50	1,363.50	2,727.00	24.00	F. W. Huider- koper.	Venable ....	Dec. 2, 1891
4,510.00	{ 54.22 } { 2,255.00 }	2,309.22	2,309.22	4,618.44	.....	Geo. Truesdell ..	C o n d o n, S h o m o, G r o a t, L a m b.	Dec. 14, 1891
148.00	74.00	62.08	62.09	124.17	11.91	Wash. Danen- hower.	Ward.....	Nov. 28, 1891
160.00	80.00	79.37	79.37	158.74	.62	Jas. H. Grant ...	Lanigan ....	Jan. 19, 1892
60.00	30.00	25.97	25.97	51.94	4.03	J. B. Carraher ...	Ward.....	Feb. 22, 1892
130.00	65.00	54.30	54.30	108.60	10.70	J. W. Duvall ....	Lanigan ....	Sept. 15, 1891
25.00	12.50	10.99	10.98	21.97	1.52	Wash. Danen- hower.	do .....	Apr. 26, 1892
170.00	85.00	82.54	82.55	165.09	2.45	Wright & Stock- ett.	do .....	July 17, 1891
140.00	70.00	52.37	52.38	104.75	17.62	J. O. Holmes ....	Ward.....	Nov. 30, 1891
300.00	150.00	150.00	150.00	300.00	.....	C. M. N. Latimer	do .....	Sept. 15, 1891
500.00	250.00	242.25	242.25	484.50	7.75	H. L. Mann.....	Lanigan ....	Jan. 9, 1892
40.00	20.00	19.19	19.19	38.38	.81	C. A. Didden ....	do .....	Aug. 26, 1891
180.00	90.00	68.22	68.23	136.45	21.77	S. B. Priest .....	Ward.....	Sept. 19, 1891
140.00	70.00	66.48	66.47	132.95	3.53	W. R. Coon.....	Lanigan ....	Nov. 8, 1891
330.00	165.00	141.19	141.18	282.37	23.82	Geo. N. Beale....	do .....	Dec. 18, 1891
330.00	165.00	111.37	111.37	222.74	53.63	F. G. Atkinson ..	do .....	Sept. 19, 1891
150.00	75.00	63.95	63.96	127.91	11.04	Jno. L. Schoffert.	Ward.....	Nov. 16, 1891
210.00	105.00	98.09	98.10	196.19	6.90	Wm. H. West & Bro.	Lanigan ....	Sept. 25, 1891
360.00	180.00	170.84	170.84	341.68	9.16	W a t e r s & Thompson.	Ward.....	Nov. 21, 1891
530.00	{ 100.00 } { 265.00 }	351.44	351.45	702.89	13.55	Woodward & Lothrop.	Condon .....	Nov. 30, 1891
70.00	{ 55.00 } { 35.00 }	88.41	88.41	176.82	1.59	C. A. Didden ....	Lanigan ....	Jan. 14, 1892
24.00	12.00	11.11	11.10	22.21	.90	Jno. Noonan ....	do .....	Dec. 3, 1891
160.00	80.00	78.99	78.98	157.97	1.02	Robt. Brooks ....	do .....	Apr. 4, 1892
200.00	100.00	92.26	92.26	184.52	7.74	A. and J. W. Frey	do .....	Dec. 3, 1891
400.00	200.00	179.49	179.49	358.98	20.51	Jacob Fussell ...	do .....	Nov. 4, 1891
80.00	40.00	36.45	36.45	72.90	3.55	Annie M. John- son.	do .....	Oct. 20, 1891

† Constructed by contract and day labor.



## TABULAR STATEMENT OF SEWERS LAID

PERMIT SEWERS—

No. of order.	Location.	Pipe sewers laid (length in feet).							3.75 by 5.625 feet brick.	Manholes built.	Basins built.	Branches used.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.				
79	Square 77.....			122								16
4	Square 93.....	48										3
36	Square 107.....			69						1		9
15	Square 152.....			38	129					1		1
49	Square 155.....	172		24						2		5
20	Square 160.....			40								1
25	Square 204.....	24										2
86	Square 237.....	129								2		3
6	Square 274.....	96										9
78	Square 369.....	37										5
11	Square 448.....	72								1		11
72	Square 469.....	52										5
9	Square 503.....	36								1		6
80	Square 534.....			50						1		7
54	Square 551.....	121										17
85	Square 585.....	53								1		4
76	Square 617.....			118								8
88	Square 633.....	77								1		4
18	Square 736.....			57	98	104				3		9
14	Square 754.....			182						1		10
58	Square 761.....	16										2
32	Square 785.....	42										4
17	Square 797.....	81								1		3
*19	Square 825.....			240						1		9
87	Square 836.....			268						2		11
50	Square 845.....	22										2
41	Square 861.....			66								11
66	Square 878.....	252								2		33
70	Square 907.....			281						1		13
8	Square 915 (south of).....	18										3
24	Square 917.....	107								2		8
38	Square 925.....	45										3
16	Square 950.....			112								16
10	Square 980 (north of).....	142		93						2		18
1	Square 997.....	46		117	54					1		15
22	Square 1,000.....			45		168						12
†67	Square 1,008.....			1,237		204	129			10		116
63	Square 1,012.....	74								1		10
5	do.....	88										10
53	Square 45, Georgetown.....		146							1		16
68	Square 75, Georgetown.....		98							3		13
62	Block 1, Le Droit Park.....			9						1		4
55	Block 3, Le Droit Park.....	25		77						1		2
40	Block 7, "Kalorama".....			178	152					4		9
13	Block 29, "Long Meadows".....	76								2		5
77	Block 38, Columbia College sub-division.....		120							1	1	6
	Total.....	2,237	555	8,237	1,146	515	531	219	343.3	87	1	812

## WORK PERFORMED UNDER

28	Howard avenue, between Sixth and Seventh streets, NW.			256						2		11
12	South Carolina avenue, between Eleventh and Twelfth streets, SE.			191						2		10
20	Florence street, between F and G streets, NE.				383					2		40
5	Wilson street, between Third and Fourth streets, NW.		297							2		39
21	H street, between Thirty-fifth and Thirty-sixth streets, NW.			245						1		13

\* Balance carried forward to fiscal year, 1893.

## UNDER THE PERMIT SYSTEM—Continued.

Continued.

Estimated cost of work.	Amount of deposit.	Cost to District of Columbia.	Cost to property owners.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
\$200.00	\$100.00	\$89.68	\$89.68	\$179.36	\$10.32	W. J. Duckett...	Lanigan ....	Apr. 7, 1892
75.00	37.50	25.27	25.27	50.54	12.23	Emmet & Heisley.	Ward.....	July 16, 1891
114.00	57.00	54.71	54.70	109.41	2.30	Cal. T. T. Brent..	do .....	Sept. 30, 1891
400.00	200.00	176.05	176.06	352.11	23.94	Dr. J. M. Gregory	Condon .....	Aug. 3, 1891
320.00	160.00	131.38	131.38	262.76	28.62	Tucker, Hellen & Johnson .....	Lanigan ....	Dec. 1, 1891
60.00	30.00	27.61	27.61	55.22	2.39	Jno. S. Larcombe	Ward.....	July 31, 1891
60.00	30.00	18.86	18.86	37.72	11.14	Theo. Friebeus...	Lanigan ....	Aug. 25, 1891
230.00	115.00	99.03	99.03	198.06	15.97	Thos. A. Harding	Ward.....	Apr. 23, 1892
150.00	75.00	48.55	48.54	97.09	26.46	A. P. Fardon .....	do .....	July 14, 1891
82.00	41.00	25.93	25.94	51.87	15.06	J. A. Baker.....	Lanigan ....	Mar. 14, 1892
120.00	60.00	60.00	60.00	120.00	.....	Chas. Mades.....	Ward.....	Aug. 3, 1891
60.00	30.00	35.77	35.77	71.74	3.23	Lorenze Kisner ..	Lanigan ....	Mar. 28, 1892
70.00	35.00	34.62	34.62	69.24	.38	O. T. Thompson ..	do .....	Aug. 4, 1891
90.00	45.00	41.05	41.05	82.10	3.95	Wm. G. Statter ..	Ward.....	Apr. 18, 1892
160.00	80.00	63.41	63.42	126.83	16.58	Jno. Cooksey ....	Lanigan ....	Feb. 10, 1892
94.00	47.00	44.42	44.42	88.84	2.58	C. W. Shiles.....	Ward.....	Apr. 26, 1892
180.00	90.00	82.14	82.15	164.29	7.85	C. W. Simpson .....	do .....	Mar. 3, 1892
150.00	75.00	52.80	52.80	105.60	22.20	E. W. Byrn.....	do .....	June 25, 1892
1,314.00	657.00	333.65	333.66	667.31	323.34	Geo. B. Phelps...	Lanigan ....	Aug. 24, 1891
240.00	120.00	144.48	144.47	288.95	15.53	W. Danenhower..	Condon .....	July 28, 1891
24.00	12.00	11.93	11.93	23.86	.07	Wm. Witthafft...	Ward.....	Dec. 3, 1891
60.00	30.00	24.79	24.78	49.57	5.22	Bernard Walls...	Lanigan ....	Sept. 22, 1891
110.00	55.00	44.46	44.46	88.92	10.54	Mrs. C. E. Loeffler	Ward.....	Aug. 31, 1891
440.00	220.00	199.42	199.42	398.84	.....	J. F. Barbour.....	do .....	Not completed.
412.00	206.00	198.31	198.31	396.62	7.69	Jno. Lynch.....	Lanigan ....	May 5, 1892
40.00	20.00	14.46	14.45	28.91	5.55	Mrs. S. Kinslow ..	Ward.....	Nov. 23, 1891
114.00	57.00	50.74	50.75	101.49	6.25	J. H. Richards...	Lanigan ....	Oct. 5, 1891
360.00	180.00	167.51	167.52	335.03	12.48	A. C. Briscoe ....	Ward.....	Feb. 1, 1892
450.00	225.00	218.24	218.24	436.48	6.76	H. Hurt, pres. W. and G. R. R. Co.	do .....	Feb. 1, 1892
30.00	15.00	14.63	14.63	28.26	.37	C. H. Gladden ...	Lanigan ....	July 18, 1891
180.00	90.00	74.01	74.02	148.03	15.98	Swormstedt & Bradley.	Ward.....	Aug. 19, 1891
70.00	35.00	28.63	28.64	57.27	6.36	Chas. Mades.....	Lanigan ....	Oct. 6, 1891
150.00	75.00	75.00	75.00	150.00	.....	J. L. Gillott.....	do .....	Sept. 18, 1891
340.00	170.00	149.70	149.69	299.39	20.31	Jno. H. Lewis ....	do .....	July 28, 1891
300.00	150.00	147.33	147.33	294.66	2.67	C. W. Simpson .....	Ward.....	July 13, 1891
510.00	255.00	242.38	242.37	484.75	12.63	Michael Lindner ..	do .....	Aug. 29, 1891
3,199.00	1,599.50	1,449.39	1,449.39	2,898.78	150.11	J. T. Batchelder and J. M. Stockett, trustees.	Condon, Wilson.	May 13, 1892
120.00	60.00	44.87	44.87	89.74	15.13	Frank Wickline..	Ward.....	Dec. 17, 1891
110.00	55.00	53.15	53.16	106.31	1.84	E. H. Fowler.....	Lanigan ....	July 22, 1891
230.00	115.00	109.38	109.39	218.77	5.61	Wm. H. Manogue ..	do .....	Mar. 21, 1892
250.00	125.00	124.14	124.14	248.28	.86	do .....	do .....	Dec. 30, 1891
140.00	70.00	67.05	67.05	134.10	2.95	D. Carroll Diggs..	do .....	Dec. 20, 1891
60.00	30.00	29.43	29.43	58.86	.57	J. W. Reed .....	do .....	Nov. 25, 1891
610.00	305.00	288.35	288.34	576.69	16.66	Albert Gleason...	do .....	Oct. 19, 1891
150.00	75.00	74.04	74.05	148.09	.95	H. Koss .....	Condon .....	July 24, 1891
170.00	85.00	108.57	108.56	217.13	6.44	Jacob Jones.....	Lanigan ....	Mar. 7, 1892
27,156.75	13,941.60	12,642.63	12,642.69	25,285.32	1,228.33			

## COMPULSORY PERMIT SYSTEM.

\$400.00	.....	\$191.65	\$191.66	\$383.31	.....	Compulsory.....	Lanigan ....	Dec. 11, 1891
300.00	.....	148.91	148.90	297.81	.....	do .....	Ward.....	Sept. 4, 1891
711.00	.....	345.84	345.85	691.69	.....	do .....	do .....	Oct. 21, 1891
380.00	.....	210.48	210.49	420.97	.....	do .....	do .....	Mar. 15, 1892
450.00	.....	227.39	227.38	454.77	.....	do .....	Condon .....	Nov. 10, 1891

† Constructed by contract and day labor.

## TABULAR STATEMENT OF SEWERS LAID

## WORK PERFORMED UNDER COMPUL.

No. of order.	Location.	Pipe sewers laid (length in feet).							3.75 by 5.625 feet brick.	Manholes built.	Basins built.	Branches used.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.				
33	Second street, between G and I streets, SE.	.....	.....	376	.....	72	.....	.....	.....	3	.....	26
27	Fourth street, between F and G streets NE.	.....	.....	61	.....	.....	.....	.....	.....	1	.....	5
26	Twelfth street, between B and C streets NE.	.....	.....	113	.....	.....	.....	.....	.....	.....	.....	7
29	Thirteenth street, between Pennsylvania avenue and E street SE.	239	.....	24	.....	.....	.....	.....	.....	2	.....	13
10	Fourteenth street, between B and C streets SW.	.....	.....	131	.....	.....	.....	.....	.....	1	.....	7
*17	Thirty-third street, between Chesapeake and Ohio Canal and M street and square 16, Georgetown.	.....	.....	373	411	36	.....	.....	.....	6	.....	49
13	Square 132	.....	.....	192	.....	.....	.....	.....	.....	1	.....	25
6	Square 192	153	.....	.....	.....	.....	.....	.....	.....	3	1	18
23	Square 192	3	.....	337	.....	.....	.....	.....	.....	3	1	23
2	Square 205	.....	.....	162	.....	.....	.....	.....	.....	1	1	21
3	Square 247	106	.....	.....	.....	.....	.....	.....	.....	2	.....	7
1	Square 282	.....	.....	242	.....	.....	.....	.....	.....	3	1	25
14	Square 310	114	.....	182	.....	.....	.....	.....	.....	2	.....	14
8	Square 368	208	.....	186	.....	.....	.....	.....	.....	4	.....	44
7	Square 413	.....	.....	162	.....	.....	.....	.....	.....	1	.....	21
16	Square 497	.....	.....	307	.....	.....	.....	.....	.....	3	.....	26
38	Square 515	.....	.....	145	.....	.....	.....	.....	.....	2	.....	10
11	Square 534	58	149	370	.....	.....	.....	.....	.....	4	.....	44
19	Square 539	.....	.....	476	.....	.....	.....	.....	.....	3	.....	46
24	Square 551	212	.....	192	.....	.....	.....	.....	.....	2	.....	43
9	Square 557	.....	.....	74	.....	.....	.....	.....	.....	1	.....	4
36	Square 571	48	174	230	.....	.....	.....	.....	.....	3	1	37
32	Square 624	.....	.....	224	.....	.....	.....	.....	.....	1	.....	31
35	Square 674	.....	.....	435	.....	.....	.....	.....	.....	3	1	.....
15	Square 774	.....	.....	200	.....	.....	.....	.....	.....	1	.....	25
22	Square 780	135	.....	365	.....	.....	.....	.....	.....	6	2	34
34	Square 867	.....	.....	164	.....	.....	.....	.....	.....	1	.....	22
37	Square 936	.....	104	.....	.....	.....	.....	.....	.....	1	.....	7
30	Square 983	.....	.....	498	.....	.....	.....	.....	.....	2	.....	30
4	Square 95, Georgetown	.....	183	.....	.....	.....	.....	.....	.....	1	.....	12
31	Block 2, Howard University subdivision.	.....	.....	92	.....	.....	.....	.....	.....	1	.....	13
Total.....		1,276	907	7,005	795	108	.....	.....	.....	77	8	802

\* Constructed by contract and day labor.

## WORK PERFORMED AT

No. of order.	Location.	Pipe sewers laid (length in feet).						Brick sewers.		Manholes built.	Basins built.	Branches used.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	24-inch.	6 ft. dia.	4 ft. dia.			
17 <sup>1</sup>	Connecticut avenue, between N and O streets NW.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7 <sup>2</sup>	Delaware avenue and C street NE.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 <sup>3</sup>	Bennings road, between Eastern Branch and Abattoir Co.'s Works.	.....	.....	63	.....	.....	.....	.....	.....	2	.....	.....
26 <sup>4</sup>	Rock Court, Georgetown	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
22	E, between Twenty-first and Virginia avenue NW.	106	.....	.....	.....	.....	.....	.....	.....	1	.....	2
11 <sup>5</sup>	I, between North Capitol and First streets NE.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	K, between Four-and-a-half and Sixth streets SW., and Sixth, between K and L streets SW.	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2

<sup>1</sup> Moving manhole top.<sup>2</sup> Manhole lowered.<sup>3</sup> Balance, \$769.95, brought forward from fiscal year 1891.



## UNDER THE PERMIT SYSTEM—Continued.

## SORRY PERMIT SYSTEM—Continued.

Estimated cost of work.	Amount of deposit.	Cost to District of Columbia.	Cost to property owners.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
\$750.00	.....	\$386.89	\$386.89	\$773.78	.....	Compulsory .....	Ward .....	Mar. 12, 1892
100.00	.....	54.42	54.43	108.85	.....	do .....	do .....	Dec. 2, 1891
190.00	.....	83.06	83.07	166.13	.....	do .....	do .....	Dec. 16, 1891
270.00	.....	166.14	166.14	332.28	.....	do .....	do .....	Dec. 22, 1891
200.00	.....	112.34	112.34	224.68	.....	do .....	do .....	Jan. 12, 1892
1,180.00	.....	834.03	834.04	1,668.07	.....	do .....	Lanigan & Wilson.	Nov. 30, 1891
280.00	.....	124.73	124.73	249.46	.....	do .....	Ward .....	July 30, 1891
360.00	.....	125.76	125.77	251.53	.....	do .....	Lanigan .....	Nov. 26, 1891
600.00	.....	297.48	297.48	594.96	.....	do .....	do .....	Nov. 26, 1891
240.00	.....	132.92	132.92	265.84	.....	do .....	Ward .....	Aug. 7, 1891
170.00	.....	75.32	75.32	150.64	.....	do .....	do .....	July 18, 1891
460.00	.....	235.83	235.82	471.65	.....	do .....	do .....	July 27, 1891
416.00	.....	203.90	203.90	407.80	.....	do .....	do .....	Aug. 14, 1891
626.00	.....	269.87	269.86	539.73	.....	do .....	Lanigan .....	Oct. 29, 1891
208.00	.....	140.31	140.30	280.61	.....	do .....	do .....	Aug. 11, 1891
430.00	.....	233.08	233.09	466.17	.....	do .....	Ward .....	Sept. 10, 1891
250.00	.....	130.13	130.13	260.26	.....	do .....	do .....	Not completed.
792.00	.....	430.64	430.64	861.28	.....	do .....	do .....	Jan. 30, 1892
600.00	.....	365.58	365.59	731.17	.....	do .....	do .....	Oct. 13, 1891
320.00	.....	300.30	300.31	600.61	.....	do .....	Lanigan .....	Feb. 3, 1892
170.00	.....	66.57	66.57	133.14	.....	do .....	Ward .....	Aug. 17, 1891
735.00	.....	392.38	392.38	784.76	.....	do .....	Lanigan .....	May 25, 1892
330.00	.....	166.67	166.67	333.34	.....	do .....	Ward .....	May 12, 1892
780.00	.....	340.56	340.55	681.11	.....	do .....	Lanigan .....	June 14, 1892
518.00	.....	224.99	224.99	449.98	.....	do .....	do .....	Not completed.
930.00	.....	466.37	466.36	932.73	.....	do .....	Ward .....	Nov. 23, 1891
240.00	.....	135.96	135.97	271.93	.....	do .....	do .....	Feb. 27, 1892
195.00	.....	96.15	96.16	192.31	.....	do .....	do .....	June 19, 1892
980.00	.....	382.69	382.68	765.37	.....	do .....	do .....	Dec. 14, 1891
192.00	.....	124.44	124.43	248.87	.....	do .....	Lanigan .....	Dec. 25, 1891
140.00	.....	73.46	73.47	146.93	.....	do .....	do .....	Mar. 12, 1892
15,893.00	.....	8,297.24	8,297.28	16,594.52	.....			

## WHOLE COST TO APPLICANT.

Estimated cost of work.	Amount of deposit.	Cost to District of Columbia.	Cost to property owners.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
\$15.00	\$15.00	.....	\$14.30	\$14.30	\$0.70	Hornblower & Marshall.	Lanigan .....	Feb. 19, 1892
15.00	15.00	.....	7.19	7.19	7.81	Geo. E. Emmons.	do .....	Nov. 3, 1891
.....	300.00	.....	948.96	948.96	120.99	W. E. Clark, treasurer.	Condon .....	July 22, 1891
30.00	30.00	.....	29.05	29.05	.95	Wm. H. Monogue	Ward .....	Apr. 26, 1892
155.00	155.00	.....	142.27	142.27	12.73	C. O. Weston, secretary and treasurer.	Lanigan .....	Apr. 1, 1892
18.00	18.00	.....	2.80	2.80	15.20	Jno. F. Miller...	Thomas .....	Nov. 11, 1891
200.00	200.00	.....	183.82	183.82	16.18	Jno. Carmody ...	Lanigan .....	July 31, 1891

<sup>a</sup>Connecting private sewage system with main sewer.<sup>b</sup>Connecting lateral with main sewer.

## TABULAR STATEMENT OF SEWERS LAID

## WORK PERFORMED AT WHOLE

No. of order.	Location.	Pipe sewers laid (length in feet).						Brick sewers.		Manholes built.	Basins built.	Branches used.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	24-inch.	6 $\frac{1}{2}$ ft. dia.	4 $\frac{1}{2}$ ft. dia.			
34	L, between Twentieth and Twenty-first streets NW.		96							1		6
31	P street, Georgetown, front Metropolitan R. R. Co.'s power house.	9	6							1	2	
18	First street and Maryland avenue SW	102										
6 <sup>1</sup>	First and D streets NW											
2 <sup>1</sup>	Fourth and L streets NW											
24	Ninth, between F and G streets NE			513						2		9
1 <sup>2</sup>	Eighteenth, between Florida avenue and Columbia road NW.											
42	Eighteenth, between Riggs street and S streets NW.			99						1		3
45	Thirtieth, between Dumbarton and O streets NW.	29										1
33	Square 135			21						1		1
10	Square 220			92						2		1
32	Square 238	87								2		6
36	Square 468			16								2
40	Square 490				91	4				2		10
46	Square 516	12									1	
41	Square 564	35										4
28	Square 585	8										1
47	Square 622	127								1		2
37	Square 754			136								8
43	Square 778			120						1		14
20	Square 801			172								20
39	Square 863	77								1		4
16	Square 1008			47								
27	Square 1023			275						3		25
35	Square 1027			30								3
44	Square 1027	3		66						1		9
25	Square 1051			120								6
38	Square 1051				49					1		5
3 <sup>3</sup>	M, between Twenty-sixth and Twenty-seventh streets NW.	27									2	
8 <sup>3</sup>	Fourteenth and Houghton street, Fourteenth street and Florida avenue.			3								
9 <sup>3</sup>	Fourteenth street and New York avenue NW.			12								
12 <sup>3</sup>	Fifteenth, between Pennsylvania and New York avenues NW.									3		
15 <sup>3</sup>	E, between Thirteenth and Fourteenth streets NW.					30						
19 <sup>3</sup>	C, between New Jersey avenue and Arthur place.											
21 <sup>3</sup>	Fourteenth street road, front of car house.											
4	Fourteenth street, between Pennsylvania avenue and D street NW.			60			6		610	3		
4	Fifteenth street and Pennsylvania avenue NW.							142				
		766	102	1,845	140	34	6	142	610	32	5	144

<sup>1</sup> Moving manhole top.<sup>2</sup> Moving traps and manholes, balance for surface work.

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 523

## UNDER THE PERMIT SYSTEM—Continued.

### COST TO APPLICANT—Continued.

Estimated cost of work.	Amount of deposit.	Cost to District of Columbia.	Cost to property owners.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
\$145.00	\$145.00	.....	\$143.45	\$143.45	\$1.55	P. A. Drury.....	Lanigan .....	May 24, 1892
140.00	140.00	.....	133.57	133.57	6.43	Met. R. R. Co., Wm. J. Wilson, secretary and treasurer.	Ward .....	May 10, 1892
122.00	122.00	.....	96.83	96.83	25.17	W. and G. R. R. Co.	Lanigan .....	Apr. 13, 1892
25.00	25.00	.....	18.80	18.80	6.20	Geo. White, president.	Boucher .....	Aug. 13, 1891
30.00	30.00	.....	23.11	23.11	6.89	do.....	Lanigan .....	July 2, 1891
765.00	765.00	.....	702.68	702.68	62.32	Jas. H. Grant.....	do .....	Apr. 25, 1892
500.00	500.00	.....	74.16	74.16	.....	Rock Creek R. R. Co.	do .....	July 6, 1891
235.00	{ 15.00 } 235.00	{ } .....	173.54	173.54	76.46	Chas. W. Handy.	Ward .....	June 9, 1892
50.00	50.00	.....	39.15	39.15	10.85	W. H. Serrin .....	Lanigan .....	June 18, 1892
80.00	80.00	.....	77.76	77.76	2.24	Harvey L. Page & Co.	do .....	May 26, 1892
360.00	360.00	.....	342.97	342.97	17.03	Sam'l M. Bryan, president C. & P. Tel. Co.	Ward & Thomas.	Oct. 29, 1891
210.00	210.00	.....	145.50	145.50	64.50	H. M. Bennett...	Ward .....	May 6, 1892
27.00	27.00	.....	25.90	25.90	1.10	Geo. Vonieff.....	Lanigan .....	June 2, 1892
284.00	284.00	.....	268.37	268.37	15.63	Sam'l H. Walker	do .....	May 31, 1892
70.00	70.00	.....	38.06	38.06	31.94	Chas. Schneider.	Ward .....	June 18, 1892
33.00	33.00	.....	32.79	32.79	.21	Geo. Emmert .....	Lanigan .....	June 2, 1892
18.00	18.00	.....	11.43	11.43	6.57	J. Crowley .....	Ward .....	Apr. 26, 1892
170.00	170.00	.....	143.74	143.74	26.26	Thos. Kirby .....	Lanigan .....	Aug. 8, 1892
225.00	225.00	.....	185.81	185.81	39.19	D. B. Groff .....	Ward .....	May 28, 1892
212.00	212.00	.....	206.67	206.67	5.33	Orin J. Taylor.....	do .....	June 7, 1892
275.00	275.00	.....	213.23	213.23	61.77	W. C. Gunnell .....	do .....	Apr. 16, 1892
120.00	120.00	.....	112.44	112.44	7.56	D. B. Groff .....	do .....	May 31, 1892
75.50	75.50	.....	68.00	68.00	7.50	J. F. Batchelder and J. M. Stockett, trustees.	Wilson .....	June 2, 1892
490.00	490.00	.....	420.16	420.16	69.84	Geo. S. Cooper .....	Ward .....	May 7, 1892
55.00	55.00	.....	28.94	28.94	26.06	J. R. Quinter .....	do .....	May 31, 1892
120.00	120.00	.....	81.36	81.36	38.64	Jno. Shugrue .....	do .....	June 1, 1892
180.00	180.00	.....	146.71	146.71	33.29	H. A. Jones .....	Lanigan .....	Apr. 28, 1892
115.00	115.00	.....	109.04	109.04	5.96	do.....	Ward .....	June 2, 1892
							Lanigan .....	July 14, 1891
							Bolden .....	Sept. 9, 1891
							do .....	Sept. 16, 1891
			419.11	419.11	2.52	{ Washington and Georgetown R. R. Co.	Lanigan .....	Nov. 13, 1891
							Thomas .....	Dec. 12, 1891
							Ward .....	Feb. 29, 1892
							Lanigan .....	Mar. 26, 189
300.00	300.00	.....	292.00	292.00	8.00	do.....	Beach .....	Dec. 16, 1891
	122.00	.....	122.00	122.00	.....	do.....	Rock .....	Nov. 30, 1891
5,864.50	6,301.50	.....	6,225.67	6,225.67	841.57			

<sup>3</sup> Changing sewer connections along the line of cable road, balance brought forward from fiscal year 1891 (\$421.63).

<sup>4</sup> Constructed by the Washington and Georgetown Railroad Company under special permit and under the supervision of an inspector of the sewer division.



## LIST OF INSPECTORS

Name.	Designation.	Compensation per diem.	Main and pipe sewers.		Construction of suburban sewers.	
			No. of contract.	Amount.	No. of contract.	Amount.
Beale, J. W. ....	Inspector .....	\$4.00	General services	\$207.96	General services	\$55.12
Cobb, Lamar, jr ..	Assistant observer.	2.50	do .....	347.25	.....	.....
	Acting rodman ..		.....	.....	.....	.....
Dickinson, H. M. ....	Inspector .....	2.50	.....	.....	.....	.....
Donaldson, Wm .....	do .....	4.00	General services	9.90	General services	5.30
Donovan, Henry .....	Subinspector .....	2.00	do .....	28.00	do .....	50.00
Fuller, E. A. ....	Stenographer .....	3.00	do .....	376.87	do .....	224.63
Gibson, H. K. ....	Subinspector .....	2.00	.....	.....	.....	.....
Grey, W. J. W. ....	do .....	2.50	General services	33.41	General services	11.89
Hodgson, F. M. ....	Time clerk .....	3.00	}	.....	.....	.....
	.....	3.50		.....	.....	.....
Hunter, P. S. ....	Timekeeper .....	2.00	.....	.....	.....	.....
Lambeth, A. M. ....	Inspector .....	3.85	.....	.....	.....	.....
McMahon, T. W. ....	do .....	4.00	General services	4.00	.....	.....
Parker, R. H. ....	Subinspector .....	2.00	do .....	43.68	General services	26.93
Thurston, F. T. ....	Observer and computer.	5.00	.....	.....	.....	.....
Voss, W. H. ....	Inspector .....	3.00	General services	220.23	General services	41.33
Webb, C. D. ....	Subinspector .....	3.00	do .....	36.38	do .....	19.48
Wallace, G. W. ....	do .....	3.00	}	1,065.75	.....	.....
	.....	3.50		.....	.....	.....
Beach, B. F. ....	Inspector .....	4.00	1387, 1468	335.60	1387	94.00
Curtis, C. T. ....	do .....	4.00	1479	198.00	.....	.....
Groat, W. H. ....	do .....	4.00	1473, 1468, 1566	398.00	1468, 1476	102.00
Lamb, R. H. ....	do .....	4.00	1566	642.80	1473	272.00
Lemon, Charles .....	do .....	3.00	1383, 1467	914.40	.....	52.00
	.....	4.00	1479, 1480		.....	.....
Lyddawe, Michael .....	do .....	4.00	.....	8.00	1480	96.00
Marks, S. A. H. ....	do .....	4.00	1270, 1479	632.00	1270, 1479	139.60
*McClure, W. F. ....	do .....	4.00	.....	.....	1480	52.00
Neville, J. A. ....	do .....	3.00	}	1383, 1467	1476	765.80
	.....	4.00		72.40	.....	.....
Quackenbush, J. N. ....	do .....	4.00	1473, 1566	538.00	1473	198.00
Rock, E. G. ....	do .....	4.00	1479, 1480	733.40	1479, 1480	399.00
Shomo, J. M. ....	do .....	4.00	1473, 1566	480.40	1566	44.00
Venable, J. L. ....	do .....	4.00	1467, 1479	180.00	1473, 1476, 1480	627.50
Wilson, G. G. ....	do .....	4.00	1468, 1566	704.00	1468, 1566	222.00
Zug, John .....	do .....	4.00	.....	.....	.....	.....

\* This amount is salary paid up to October 31, 1892, on contract No. 1480.

## ON SEWER WORK.

[illegible]

## LIST OF INSPECTORS

Name.	Designation.	Com- pensa- tion per diem.	Main and pipe sewers.		Construction of subur- ban sewers.	
			No. of contract.	Amount.	No. of contract.	Amount.
Beale, J. W. ....	Inspector .....	\$4. 00	General services	\$207. 96	General services	\$55. 12
Cobb, Lamar, jr. ..	Assistant ob- server. }	2. 50	do .....	347. 25	.....	.....
Dickinson, H. M. ....	Acting rodman }	2. 50	.....	.....	.....	.....
Donaldson, Wm. ....	Inspector .....	4. 00	General services	9. 90	General services	5. 30
Donovan, Henry ....	Subinspector .....	2. 00	do .....	28. 00	do .....	50. 00
Fuller, E. A. ....	Stenographer .....	3. 00	do .....	376. 87	do .....	224. 63
Gibson, H. K. ....	Subinspector .....	2. 00	.....	.....	.....	.....
Grey, W. J. W. ....	do .....	2. 50	General services	33. 41	General services	11. 89
Hodgson, F. M. ....	Time clerk .....	3. 00	}	.....	.....	.....
Hunter, P. S. ....	Timekeeper .....	3. 50				
Lambeth, A. M. ....	Inspector .....	2. 00	.....	.....	.....	.....
McMahon, T. W. ....	do .....	3. 85	General services	4. 00	General services	26. 93
Parker, R. H. ....	Subinspector .....	4. 00	do .....	43. 68	General services	26. 93
Thurston, F. T. ....	Observer and computer. ....	2. 00	.....	.....	.....	.....
Voss, W. H. ....	Inspector .....	5. 00	General services	220. 23	General services	41. 33
Webb, C. D. ....	Subinspector .....	3. 00	do .....	36. 38	do .....	19. 48
Wallace, G. W. ....	do .....	3. 00	}	1, 065. 75	.....	.....
Beach, B. F. ....	Inspector .....	3. 50				
Curtis, C. T. ....	do .....	4. 00	1387, 1468	335. 60	1387	94. 00
Groat, W. H. ....	do .....	4. 00	1479	198. 00	.....	.....
Lamb, R. H. ....	do .....	4. 00	1473, 1468, 1566	398. 00	1468, 1476	102. 00
Lemon, Charles ....	do .....	4. 00	1566	642. 80	1473	272. 00
Lyddawe, Michael ..	do .....	3. 00	1383, 1467	914. 40	.....	52. 00
Marks, S. A. H. ....	do .....	4. 00	1479, 1480		.....	.....
*McClure, W. F. ....	do .....	4. 00	.....	8. 00	1480	96. 00
Nevville, J. A. ....	do .....	4. 00	1270, 1479	632. 00	1270, 1479	139. 60
Quackenbush, J. N. .	do .....	4. 00	.....	.....	1480	52. 00
Rock, E. G. ....	do .....	3. 00	}	72. 40	1476	765. 80
Shomo, J. M. ....	do .....	4. 00				
Venable, J. L. ....	do .....	4. 00	1383, 1467	72. 40	1476	765. 80
Wilson, G. G. ....	do .....	4. 00	1473, 1566	538. 00	1473	198. 00
Zug, John. ....	do .....	4. 00	1479, 1480	733. 40	1479, 1480	399. 00
	do .....	4. 00	1473, 1566	480. 40	1566	44. 00
	do .....	4. 00	1467, 1479	180. 00	1473, 1476, 1480	627. 50
	do .....	4. 00	1468, 1566	704. 00	1468, 1566	222. 00
	do .....	4. 00	.....	.....	.....	.....

\* This amount is salary paid up to October 31, 1892, on contract No. 1480.



## REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 525

## ON SEWER WORK.

[illegible]

# 526 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## LIST OF INSPECTORS PAID FROM THE STREET LIGHTING APPROPRIATIONS.

Name.	Rank.	Days.	Rate per day.	Amount paid.	Paid from appropriation.
Wm. Burnell .....	Inspector.	164	\$3. 00	\$492. 00	Electric lighting, 1892.
Do .....	do .....	70	4. 00	280. 00	Lighting, 1892.
W. B. Sebastian .....	do .....	9. 6	3. 50	33. 60	Do.

## LIST OF INSPECTORS, WATER DEPARTMENT, ENGAGED ON MANUFACTURE OF CAST-IRON PIPE.

*List of inspectors employed in the distribution branch, Water Department, during fiscal year ending June 30, 1892.*

Name.	Work.	Days.	Per diem.	Amount.	From what appropriation.
W. J. Hoyt .....	Inspector on cast-iron pipe .....	275 $\frac{1}{8}$	\$4. 50	\$1, 237. 80	Salaries.
H. P. Hoyt .....	do .....	87 $\frac{1}{2}$	3. 00	262. 00	Do.
Total .....	.....	.....	.....	\$1, 499. 80	

B.—REPORT OF CAPT. G. J. FIEBEGER, CORPS OF ENGINEERS, U. S. ARMY,  
ASSISTANT TO THE ENGINEER COMMISSIONER OF THE DISTRICT OF  
COLUMBIA.

WASHINGTON, D. C., November 1, 1892.

SIR: I have the honor to submit the following report of the operations of the surface department for the fiscal year ending June 30, 1892. Until my assignment to duty on December 2, 1891, this department was under the personal supervision of the present Engineer Commissioner.

The nature of the work is shown in the following statement of appropriations and expenditures:

	Nature of work.	Appropriation, 1891-'92.	Expenditures and liabilities.	Estimates for 1893-'94.
1	For work on streets and avenues .....	\$400,000	\$349,000.21	\$730,000
2	Construction of county roads and suburban streets .....	127,000	97,745.05	125,000
3	Grading streets, alleys, and roads .....	20,000	18,540.74	20,000
4	Paving and curbing roadways (permit system) .....	50,000	29,357.47	25,000
5	Improvement and repair of alleys and sidewalks and construction of sewers and sidewalks (permit system) .....	165,000	*153,279.43	165,000
6	Repairs to concrete pavements .....	150,000	150,000.00	200,000
7	Repairs to streets, avenues, and alleys .....	45,000	44,996.74	50,000
8	Repairs to county roads .....	60,000	59,936.51	60,000
9	Care of bridges .....	20,000	19,485.53	25,000
10	Surveys on account of subdivision of land .....	5,000	4,725.40	5,000
11	Parking commission .....	19,000	18,794.89	25,000
12	Contingent expenses for engineer stables .....	6,000	5,920.19	6,000
13	Rent of property yards .....	1,000	300.00	500

\* Expended in improving alleys and sidewalks.

WORK ON STREETS AND AVENUES.

All the streets in the schedule for 1891-'92 have been completed. The following summary shows the amount of work done since the last annual report:

Sheet asphalt on concrete base .....	square yards..	55,046
Sheet asphalt on bituminous base .....	do .....	11,730
Sheet asphalt on cobble base .....	do .....	2,113
Asphalt block .....	do .....	19,476
Granite block .....	do .....	1,134
Macadam .....	do .....	13,399
Brick sidewalks laid and relaid .....	do .....	690
Curb laid and relaid .....	linear feet..	45,013
Cobble gutters and crossing .....	square yards..	3,190
Vitrified brick gutters .....	do .....	1,435
Cobble removed .....	do .....	25,889
Old curb removed .....	linear feet..	17,910
Flag laid .....	do .....	8,670
Grading earth .....	cubic yards..	56,886
Grading macadam .....	do .....	3,369



This work was all done by contract at the following prices (the specifications are given in the appendix):

Sheet asphalt on 6-inch concrete base, exclusive of grading, per square yard.....	\$2. 25
Sheet asphalt on 4-inch bituminous base, exclusive of grading, per square yard.....	2. 00
Asphalt block on gravel base, exclusive of grading, per square yard....	2. 00
Granite block on gravel base, exclusive of grading and cost of blocks, per square yard.....	. 95
Granite blocks delivered at yards, \$43 to \$46 per M, per square yard....	1. 80 to 1. 93
Ordinary macadam, 12½-inches thick, exclusive of grading .....	. 92½
Telford macadam, 8-inch base, 5½ inches macadam, exclusive of grading.	. 99½
Brick sidewalks, exclusive of grading and price of brick, per square yard.....	. 20 to . 31
Relaying same, exclusive of grading and price of brick, per square yard.	. 20 to . 36
Bricks, paving, delivered on street, \$10.39 per M.....do....	. 38
Tile walks, exclusive of grading and price of tile.....do....	. 42
Vitrified tile, delivered at yard, \$36 per M.....do....	. 58
6 by 20-inch granite curb set, exclusive of cost of curb.. per linear foot..	. 16 to . 25
6 by 20-inch granite curb, delivered at property yard.....do....	. 99
8 by 8-inch granite curb on 6-inch concrete base, exclusive of cost of curb.....per linear foot..	. 40 to . 50
8 by 8-inch granite curb, delivered at property yard.....do....	. 87
Resetting 6 by 20-inch curb .....	. 09 to . 16
Cobble gutters, exclusive of cost of material .....	. 16 to . 20
Vitrified brick gutters on 6-inch concrete base, exclusive of cost of brick .....	1. 27
Vitrified brick, delivered at property yards, \$16.88 to \$19 per M..do....	1. 01 to 1. 14
Cobble taken up and removed to property yards.....do....	. 08 to . 15
Old curb taken up and removed to property yards....per linear foot..	. 05 to . 08
Grading earth, 500 feet haul .....	. 18 to . 40
Grading macadam, 500 feet haul .....	. 35 to . 68
Hauling earth and macadam each 100 feet over 500 .....	. 00½to . 01½

This work is under the immediate charge of the computing engineer, Mr. Geo. H. Bailey, and his assistants. His report gives the details of the cost of improving each street.

The condition of the streets of Washington and its suburbs on July 1, 1892, as shown in detail in the tabular statement in the appendix, is as follows. The table has been carefully revised and all resurfaced streets put under the head of the material with which the resurfacing was done. This table does not include work done by private parties or corporations.

	Surface.		
	City streets.	Suburban streets.	Total.
Sheet asphalt.....	Sq. yards. 1, 500, 780	Sq. yards. 73, 025	Sq. yards. 1, 573, 805
Coal-tar, concrete, and distillate.....	564, 219		564, 219
Asphalt block.....	270, 459	966	271, 425
Stone block, granite, and trap.....	544, 157	23, 241	567, 398
Rough stone, cobble, and rubble.....	319, 031		319, 031
Macadam .....	287, 917	45, 222	333, 139
Total improved .....	3, 486, 563	142, 454	3, 629, 017
Total unimproved.....	1, 741, 056		1, 741, 056

The rough stone, macadam, and most of the trap rock pavements can only be considered as temporary improvements, and must eventually be replaced with some better material. They are difficult to keep clean and in repair.

The distribution of the improvements in the various sections of the city is shown in the following table:

	Surface.					
	George-town.	Northwest.	Southwest.	Northeast.	Southeast.	Total.
	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>
Sheet pavements.....	100,869	1,601,698	119,712	144,929	97,791	2,864,999
Asphalt block.....	7,883	37,311	11,609	109,621	104,035	270,459
Stone block.....	70,902	195,066	221,003	15,000	42,186	544,157
Rough stone.....	28,876	145,656	89,424	4,009	51,066	319,031
Macadam.....	11,623	89,283	34,255	37,729	115,027	287,917
Total improved.....	220,153	2,069,014	476,003	311,288	410,105	3,486,563
Total unimproved.....	60,528	318,389	218,482	617,070	526,587	1,741,056
Percentage improved.....	78.4	86.6	68.5	33.5	43.8	66.3
Percentage unimproved.....	21.6	13.4	31.5	66.5	56.2	33.7

Considering the rapid development of all sections of the city, the appropriation for improvement of streets for the next fiscal year should be at least \$730,000. Of this amount about \$250,000 will be necessary to complete the schedule of the present year.

The effect of the improvements made under the present form of government is shown briefly in the following table. The two periods have been selected because it was during the first that the old wooden pavements laid by the board of public works were being replaced, and during the second that the improvements were extended into sections of the city never before improved:

Taxable valuations:	
1878.....	\$80,798,025
1885.....	89,315,007
1892.....	133,641,258
Increase, 1878 to 1885.....	8,516,982
Annual increase.....	1,216,711
Increase, 1885 to 1892.....	44,326,251
Annual increase.....	6,332,321

During the latter period the annual appropriations for street improvements averaged \$474,285.

In dividing the total amount of the estimates among the different sections into which the city is divided, two points have been considered and given equal weight, viz, the taxable valuations and the percentage of unimproved streets. The result is shown in the following table:

1.	2.	3.	4.	5.	6.	7.	8.
	Taxable valuation.	Relative proportion.	Per cent- age of unim- proved streets in section.	Relative proportion.	Means of columns 3 and 5.	Proportion adopted.	Amount.
Georgetown.....	\$6,463,932	4.82	21.6	11.4	8.1	8.5	\$62,050
Northwest.....	99,312,156	74.30	13.4	7.3	40.8	38.0	277,400
Southwest.....	10,657,544	8.00	31.5	16.6	12.3	13.0	94,900
Northeast.....	8,690,719	6.50	66.5	35.1	20.8	21.5	156,950
Southeast.....	8,516,647	6.38	56.2	29.6	18.0	19.0	138,700
Total.....	133,614,258	100.00	.....	100.0	100.0	100.0	730,000

The schedule proposed for 1893-'94 is given in the appendix. It includes the incompleated portion of that submitted to Congress at its last session.

In general, the term "regulate" is used as meaning to curb and lay

brick sidewalks. The surface of the street will be graveled if that material is found near at hand.

#### CONSTRUCTING COUNTY ROADS AND SUBURBAN STREETS.

The following table gives a summary of the amount of work done on these roads and streets during the fiscal year 1892. The appropriation for Connecticut avenue extended was not expended, as Congress decided to have the avenue macadamized instead of graveled. The work will be done during the present fiscal year.

Sheet asphalt on concrete base.....	square yards..	8,561
Sheet asphalt on bituminous base .....	do.....	4,621
Granite block.....	do.....	7,358
Macadam.....	do.....	6,904
Gravel .....	do.....	3,926
Brick sidewalk .....	do.....	9,398
Curb laid .....	linear feet..	9,197
Curb relaid .....	do.....	2,590
Cobble gutters, etc .....	square yards..	2,231
Flag laid .....	linear feet..	4,371
Old cobble removed .....	square yards..	5,001
Old curb removed.....	linear feet..	100
Grading (earth) .....	cubic yards..	57,107
Grading (macadam).....	do.....	696

The prices paid were about the same as for similar work in the city.

The details as to the streets improved will be found in the report of the computing engineer.

The effect of the improvement of suburban streets is shown in the following table:

Taxable valuations:	
1878 .....	\$6,693,417
1886 .....	7,172,075
1892 .....	13,415,018
Increase from 1880 to 1886.....	478,658
Annual increase.....	59,832
Increase from 1886 to 1892.....	6,242,943
Annual increase.....	1,040,090

The first appropriation for constructing suburban streets was made for the fiscal year 1886-'87, since which time the average annual appropriation has been \$101,743.

As the suburbs are growing rapidly, the annual appropriation for improvements should be increased to at least \$125,000. I would further recommend that suburban streets and county roads be entirely separated in the estimates, and that in future this appropriation be worded "For construction and repair of suburban streets." Many of the streets of the suburban subdivisions are paved, and there should be a fund for current repairs similar to that in the city. The schedule given in the appendix has been made in accordance with this suggestion.

#### GRADING STREETS, ALLEYS, AND ROADS.

This appropriation was expended in grading streets, alleys, and roads when the owners of abutting property were willing to pay all the cost of grading in excess of 10 cents a cubic yard. It has been principally expended in the streets of suburban subdivisions for which no other appropriation was made.

As these streets are made to conform to the plan of the city and are being dedicated to the District, I believe the appropriation is a wise one and should be continued. I accordingly recommend an appropriation of \$20,000.



The details of expenditure will be found in the report of the computing engineer.

#### GRADING AND PAVING ROADWAYS (PERMIT SYSTEM).

During the fiscal year the following streets were paved with asphalt under this appropriation, the owners of abutting property paying one-half of the total cost:

Street.	From—	To—
First W .....	R .....	S.
Morgan place .....	New York avenue .....	Kirby.
Welling place .....	Fourteenth .....	University place.
Ledroit avenue .....	Florida avenue .....	U.
First E .....	R .....	Northward.
Third E .....	R .....	Quincy.
Quincy .....	Third .....	Eckington place.
Q .....	Lincoln avenue .....	Eckington place.
Thirteenth NE .....	Maryland avenue .....	Emerson.
Emerson .....	Thirteenth .....	Fourteenth.

Contracts were entered into for the pavement of Cambridge place, Irwin place, and Avon place, Georgetown, and New Hampshire avenue and Omaha streets, Petworth. These will be completed during the fiscal year.

It is evident that at the present rate of extending the improvements it will be years before the streets are improved in many parts of the city and suburbs. The permit system was devised to enable property-owners who were willing to pay for these improvements to have them ahead of the regular schedule.

By paying one-half the cost of the improvement, property-owners are now enabled to secure sewers, sidewalks, and alley pavements. There seems to be no good reason why the same system should not be applied to roadway pavements, and I would therefore recommend that this item be again inserted in the estimates for 1893-'94.

#### IMPROVEMENTS AND REPAIR OF ALLEYS AND SIDEWALKS AND CONSTRUCTION OF SEWERS AND SIDEWALKS (PERMIT SYSTEM.)

Of the \$165,000 appropriation for this purpose \$122,958 was allotted to the surface department for the improvement and repair of alleys and sidewalks. In addition there became available during the year about \$25,000 more, which was paid on work completed during the year.

The following table gives a summary of the work done:

	Regular.	Compulsory.	Total.
Sheet asphalt .....	128		128
Asphalt block .....	4,691	4,175	8,866
Granite block .....	659		659
Vitrified brick .....	968	41,814	42,782
Cobble .....	3,187		3,187
Curb set .....	4,716	1,316	6,032
Curb reset .....	594		594
Flag laid .....	1,803	20	1,823
Granolithic walk .....	4,356	929	5,285
Asphalt-tile walk .....	3,033	2,690	5,723
Cement-tile walk .....	450		450
Vitrified-tile walk .....	113		113
Brick walk .....	11,210	37,744	48,954
Grading .....	8,245	13,074	21,319

A detailed statement showing the localities in which this work was done will be found in the report of the superintendent of streets, Mr. H. N. Moss.

As there is no clerical force provided for the superintendent of streets or for the special assessment bureau, which prepares the assessments for compulsory work, all employes engaged in this work must be paid out of the appropriation.

It has therefore been necessary to add 5 per cent to all permit work for the former and an additional 4 per cent to all compulsory work for the latter. It is recommended that in future this clerical force be put on the regular roll or a special appropriation secured for this purpose. One-half the cost of labor and materials only would then be charged to the property.

As will be seen in the summary given, considerable progress has been made towards securing better sidewalks. During the fiscal year over 11,000 square yards of old brick walk were replaced with granolithic or cement, asphalt and cement tiles.

The granolithic walk is the one generally preferred by the property owners and is now laid for \$1.75 a square yard. This pavement consists of a base of 5 inches of broken stone and 5 inches of Portland cement concrete. The material used in the surface layer, which is 1 inch thick, is finely broken blue stone chippings. This pavement presents an even surface, but is difficult and expensive to repair.

The asphalt-tile walk is made of compressed hexagonal or square blocks laid in a bed of sand. The present cost is about \$1.80 a square yard. This pavement has the advantage of being easily repaired.

The walks of ordinary paving bricks laid during the year cost about 70 cents a square yard.

The paving of alleys is the most important work done under this appropriation. As a rule this has been done under the compulsory permit system upon the recommendation of the health officer.

The materials used were vitrified brick and asphalt block, both laid by hired labor. The average cost of the former was \$2.18, and of the latter \$1.76 per square yard, including grading and cost of materials.

#### REPAIRS TO CONCRETE PAVEMENTS.

The term "concrete pavements" is applied to all the smooth pavements of the city, whether coal-tar distillate, asphalt, or asphalt block. On July 1, 1892, the total area of these pavements was 2,411,449 square yards. They were laid as stated in the following table:

Calendar year.	Coal tar.	Asphalt.	Asphalt block.	Total.	Calendar year.	Coal tar.	Asphalt.	Asphalt block.	Total.
1871 .....	17,017	.....	.....	17,017	1883 .....	.....	109,121	14,130	123,250
1872 .....	163,991	.....	.....	163,991	1884 .....	.....	79,865	9,867	89,732
1873 .....	279,578	4,540	.....	284,118	1885 .....	.....	32,497	8,934	41,431
1874 .....	29,614	7,188	.....	36,802	1886 .....	6,055	6,041	38,140	50,236
1875 .....	179,658	7,203	.....	186,861	1887 .....	112,203	15,993	37,957	166,153
1876 .....	14,755	58,904	.....	73,659	1888 .....	10,100	42,290	7,834	60,224
1877 .....	84,319	26,436	.....	110,755	1889 .....	13,222	109,072	53,508	175,802
1878 .....	676	18,547	1,093	20,319	1890 .....	.....	115,232	25,229	140,461
1879 .....	12,840	118,206	3,214	134,260	1891 .....	.....	147,900	51,164	199,064
1880 .....	.....	84,905	3,214	87,119	1892 .....	.....	55,270	10,358	65,628
1881 .....	.....	85,757	1,846	87,603					
1882 .....	.....	91,029	4,937	95,960	Total.	924,028	1,213,996	271,425	2,411,449

The coal-tar concretes were laid from 1871 to 1879, under several different patents, at a cost of from \$2.47 to \$3.23 per square yard. Since first laid about 360,000 square yards of these pavements have been resurfaced with asphalt and are now classified as asphalt pavements.

The coal-tar distillates were laid from 1886 to 1889, at a cost of \$2 per square yard.

Asphalt pavements have been laid since 1873. The Trinidad asphalt has been considered the standard pavement since 1878. The cost has varied from \$1.75 to \$3.78 per square yard, but for many years the price has been \$2.25 per square yard with a 6-inch concrete base and \$2 a yard with a 4-inch concrete or bituminous base, exclusive of grading, etc.

Asphalt-block pavements have been laid since 1878. The price has varied from \$2 to \$2.50 per square yard, but for several years has been \$2 per square yard, exclusive of grading.

#### MAINTENANCE.

All pavements laid since 1878 have been kept in repair by the contractors without cost to the District for a period of five years. The repairs after the guaranty period have been made by the District under a special contract.

The contract now in force was made with the Cranford Paving Company for a period of five years. It will terminate on July 1, 1893. Under this contract ordinary repairs are guaranteed for one year and made at the following prices: Asphalt surface, \$17 per cubic yard in place; binder, \$7 a cubic yard in place; bituminous base, \$3 per cubic yard in place; and hydraulic-cement concrete, \$5 a cubic yard in place. Resurfacing is guaranteed as new pavement for a period of five years, and all repairs during that time are made at the contractor's expense. The prices are the same as for ordinary repairs, except that the asphalt surface itself is \$1.02 per square yard. The pavements are kept in repair as long as possible by cutting out defective places and patching. When this method is no longer practicable the entire surface is renewed. The following table, made up from the office records, shows the amount and cost of repairs since 1884, when the guarantee expired on the pavements of 1878.

*Cost of maintaining concrete pavements.*

Year.	Resurfacing.			Repairs.			Resurfacing and repairs.		
	Square yards.	Cost.	Cost per square yard.	Square yards not under guarantee.	Cost.	Cost per square yard.	Square yards.	Cost.	Cost per square yard.
1879	17,864	\$29,691	\$1.66						
1880	53,436	59,187	1.11						
1881	20,451	31,300	1.53						
1882	31,172	45,742	1.47						
1883	19,445	29,682	1.52						
1884	19,427	31,556	1.62	812,070	\$12,043	\$0.015	831,497	\$43,599	\$0.052
1885	15,991	27,208	1.70	917,255	22,000	.024	933,246	49,208	.052
1886	18,354	29,566	1.60	1,009,005	18,168	.018	1,027,359	47,734	.046
1887	24,839	35,484	1.43	1,107,722	29,502	.027	1,132,561	64,986	.057
1888	29,260	34,424	1.17	1,203,569	45,747	.039	1,232,829	80,171	.063
1889	44,972	55,587	1.24	1,315,561	35,802	.027	1,360,533	91,389	.067
1890	97,846	166,440	1.68	1,357,609	43,392	.032	1,455,455	209,832	.144
1891	49,976	69,411	1.40	1,343,535	46,445	.034	1,393,511	115,856	.083
1892	51,583	79,493	1.54	1,396,386	62,460	.044	1,447,969	141,955	.098
Average cost.			1.50			.030			.078

From this table it will be seen that the average annual cost of making ordinary repairs has been about 3 cents per square yard. As the pavements now being laid are superior to coal tar and earlier asphalt pavements it is safe to say that this cost will decrease as soon as all the old pavements have been resurfaced.



# 534 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

The cost of resurfacing will probably remain constant at about \$1.50 a square yard. The life of coal-tar pavements—that is, the time which elapses between the completion and the resurfacing—has varied from two to twenty years. The life of the asphalt and asphalt block are still undetermined. The asphalt pavement laid on Pennsylvania avenue lasted about twelve years. This should be the minimum life for these pavements if well laid.

The first asphalt-block pavement only lasted about nine or ten years, but the quality of the blocks has improved since these were laid, and a much longer life is expected of those laid since 1885.

## ESTIMATE FOR 1893-'94.

The coal-tar pavements laid before 1879 can no longer be kept in good condition by ordinary repairs and should be resurfaced at once. To provide for this and for ordinary repairs the appropriation for 1893-'94 should be at least \$200,000.

## CURRENT REPAIRS OF STREETS, AVENUES, AND ALLEYS.

This appropriation provides for the repairs of all roadway pavements other than those paved with asphalt or coal tar; all alley pavements not relaid under the permit system; sidewalks around public reservations, and repairs made necessary by the growth of the roots of trees.

During the fiscal year the following work was done under this appropriation:

Sheet asphalt .....	square yards..	261
Granite block .....	do.....	3, 286
Vitrified brick.....	do.....	5, 661
Cobble .....	do.....	27, 776
Asphalt tile .....	do.....	839
Vitrified tile .....	do.....	1, 016
Paving brick.....	do.....	9, 287
Curb set.....	linear feet..	1, 588
Curb reset.....	do.....	8, 618
Flag laid.....	do.....	17, 403
Old asphalt broken and spread on unimproved roadways .....	square yards..	2, 600
Grading.....	cubic yards..	2, 625

The regulations adopted by the Commissioners require that all cuts in improved streets made by plumbers or others shall be repaired by the superintendent of streets; and that no permits shall be granted until a sufficient deposit is made to cover the cost of these repairs.

Under this regulation the following work was done during the fiscal year:

Plumbers' cuts:	Square yards.
364 cuts in sheet asphalt.....	962
138 cuts in granite blocks.....	696
182 cuts in asphalt block.....	1, 114
234 cuts in cobble.....	1, 768
22 cuts in vitrified brick.....	371
22 cuts in macadam.....	168
18 cuts in asphalt, surface only.....	141
Water department—174 cuts.....	778
Sewer department—110 cuts.....	603
Surface department—31 cuts.....	542
Washington Gas Light Company—cuts for mains.....	2, 256
Chesapeake and Potomac Telephone Company—cuts for underground system ..	3, 546
United States Electric Lighting Company—cuts for underground system ....	252
Washington and Georgetown Railroad Company—cuts for cable system .....	75
Total—Base laid, 9,379 square yards; paved, 6,043 square yards.	
Total cost, \$25,923.42.	

With over 3,500,000 yards of improved roadway, the systematic regulation and repair of cuts is a matter of great importance.

That this work has been well done is due to the intelligent efforts of Mr. Raymond, of the surface department, and Mr. Woodward, permit clerk, and to the efficient coöperation of the police department in preventing the unlawful cutting of the pavements.

A detailed statement of work under the appropriation for current repairs will be found in the report of the superintendent of streets.

In connection with this appropriation, I would call attention to the necessity of providing better sidewalks and curbs around the public parks. There should be a special amount set aside for this purpose every year, and I would therefore suggest that the appropriation for current repairs of streets, etc., for 1893-'94 read as follows:

For current repairs of streets, avenues, and alleys, \$50,000, of which \$5,000 shall be expended upon the sidewalks and curbs around public parks and reservations.

#### REPAIRS TO COUNTY ROADS.

An itemized list of the expenditures during the fiscal year may be found in the report of the superintendent of county roads, Mr. George N. Beale.

The work consisted in making general repairs on all the country roads and suburban streets in the District, viz: Repairing washouts, cleaning gutters, repairing culverts, etc. As the aggregate length of these roads and streets is over 150 miles, this work absorbed the greater part of the appropriation. The repairs were ordinarily made with bank gravel, as this was the only material available within the limits of the appropriation. Special repairs of a more permanent character were made upon the following roads:

Brentwood road was macadamized between Florida avenue and R street and between Patterson avenue and Harmony Cemetery; Bladensburg road was graded, guttered, and macadamized, where necessary, between Florida avenue and Mount Olivet Cemetery; Bennings road was macadamized between the bridge and Bennings; Elm street, in Le Droit Park, and Capitol street, Ivy City, were improved in the same way. All these streets had been almost impassable during the winter months preceding the improvement. For the purposes of making repairs in a systematic manner, the District is divided into four sections, and a competent foreman with a gang of men placed in charge of each section.

This is the only subdivision of force which the present appropriation will admit. For proper maintenance, this force should be further extended by placing one man in charge of every mile of road on the principal thoroughfares, and every 2 or 3 miles on the minor country roads. This would require the appropriation to be increased by \$25,000.

Furthermore, the repairs should be made with broken stone on the principal roads and gravel used only on those of less importance. I have already recommended that the suburban streets and country roads be separately appropriated for in the future, and to avoid any misunderstanding the appropriation for county roads should read, "for construction and repair of county roads."

Extensive repairs are necessary on all the principal county roads of the District, as the appropriations for the past few years have been expended principally on suburban streets.

## CARE OF BRIDGES.

The total number of bridges in the District under the supervision of the Commissioners is sixty-five; their aggregate length is about  $1\frac{3}{4}$  miles.

Nearly all of these bridges have been constructed with special reference to economy; as a result they compare very unfavorably with the other public works in the District.

Many of them are old wooden structures which require constant repair and should be replaced as soon as possible with more modern structures of metal or masonry. The laws regulating the crossing of bridges, which were made many years ago and do not apply to the present conditions, should be repealed, and the Commissioners given the power to make such regulations as they may deem necessary.

During the past year the bridge division was organized under Mr. C. B. Hunt, assistant engineer, and all matters relating to their construction, maintenance, and repair placed under his supervision.

As no report has ever been made of the bridges, I have directed Mr. Hunt to report in full upon their condition for future reference.

I would earnestly recommend that the estimate of \$25,000 for "care of bridges" be approved, and in addition that an appropriation of \$50,000 be requested for widening the P Street bridge over Rock Creek, and another of \$250,000 be requested for replacing the present Navy-Yard bridge.

The details as to the work and expenditures during the fiscal year will be found in the report of the engineer of bridges.

## SURVEYS ON ACCOUNT OF SUBDIVISIONS OF LANDS.

This work has been under the charge of Mr. W. P. Richards, assistant engineer, whose report is given in the appendix.

The work of this division has been of great importance in not only regulating the streets of suburban subdivisions so that they conform to law, but also in establishing permanent monuments and benches to which they can always be referred. The location of many of the older roads is very indefinite, there being no official record or permanent benches from which their location or width can be determined. As the suburban property is constantly increasing in value steps should be taken at once to secure official plats showing the exact location and dimension of all roads in the District from surveys and the best available data.

It is also important that the present scheme of laying out all streets, either north and south, or east and west, should be modified in so far as it relates to subdivisions where the ground is very irregular. There are many sections of the District where it will be impossible to secure streets of practicable grades if this system is rigidly adhered to. Others, where these streets can be opened only by such expenditures for grading as will practically prohibit improvement.

In these sections the Commissioners should be allowed to use their discretion. Plans for such subdivisions might be prepared by the computing engineer in conjunction with the engineer in charge of surveys which would harmonize with the neighboring subdivisions, and yet conform to the topography of the country. The excellent map of the District, prepared by the Coast Survey, would furnish sufficient data for all preliminary work, and the lines could be located in the field by the present force of the engineer in charge of surveys.



## PARKING COMMISSION.

The care of the trees along the public streets has, as heretofore, been under the supervision of Mr. William R. Smith, of the Botanical Gardens, Mr. John Saul, and Mr. William Saunders, of the Agricultural Department. None of these gentlemen receives any compensation for his services. The amount and character of the work done is shown in the annual report of the superintendent, Mr. Truman Lanham.

The parking commission has repeatedly called attention to the necessity of increasing the appropriations for the care of the trees. Notwithstanding the growth of the city there has been no increase in this appropriation for the last ten years. It is earnestly recommended that the entire amount estimated as necessary to carry out the work of the commission during the next fiscal year, be granted. The care of the trees should be considered fully as important as the care of the roadway pavements and sidewalks.

## PROPERTY DIVISION.

Nearly all materials used in construction of sewers and pavement of streets are purchased by the District and issued to the contractors. These materials are received at the property yards, where they are inspected before acceptance. The superintendent of property has charge of all materials from the time they are received at the yard until they are issued, upon proper requisition, to the various works of improvement.

There are at present three property yards located on public ground and one on private; for the latter an annual rental of \$300 is paid. On account of want of funds only one of these yards is inclosed. A slight increase in the appropriation is asked to provide for the proper protection of the yards and the construction of a platform scale to weigh the forage purchased for the stables and cement for the yards. The report of the superintendent of property, Mr. L. T. Boiseau, gives the amount of materials received and used during the fiscal year.

## STREET RAILWAYS.

The following table shows the street railways in actual operation in the District:

Name.	Double.	Single.	Character.	Kind of rails.	Character of pavement between tracks.
	<i>Miles.</i>	<i>Miles.</i>			
Washington and Georgetown Railroad Company.	10.26	.55	Cable .....	Grooved girder.	Asphalt and granite.
Metropolitan Railway Company.	8.36	2.35	Horse .....	do .....	Cobble.
Columbia Railway Company.	2.81	.....	do .....	do .....	Do.
Eckington and Soldiers' Home Railway Company.	4.88	1.13	Trolley, 3.88 miles; storage battery, 1 mile.	do .....	Asphalt.
Capital, North O Street and South Washington.	6.60	1.13	Horse .....	do .....	Cobble.
Anacostia Railway Company.	6.11	.92	do .....	do .....	Do.
Georgetown and Tennallytown.	4.35	.....	Trolley .....	Grooved girder, 1.8 miles.	Do.
Rock Creek Railway Company.	5.00	.07	do .....	Grooved girder, 0.80 mile.	Do.

The Washington and Georgetown Railway has been operated as a cable line since September 1, 1892. The first cars were run on August 6, as required by law.

The contemplated change of motive power on the Metropolitan road has been postponed by act of Congress until August 6, 1893.

All the railroad companies have substituted grooved girder rails for the old rails over the greater portion of their lines in the city. This change has now been entirely completed by the Columbia, Anacostia, and Metropolitan railroads. The condition of the streets has been very much improved thereby.

There is one other alteration which should be required of the railway companies: The cobble and rubblestones should be removed from all streets paved with asphalt, asphalt and granite blocks. These cobblestone pavements are continually out of repair and are seldom clean.

During the last session of Congress charters or modifications of charters were granted to the following railways:

Anacostia and Potomac, Brightwood, Columbia Suburban, Eckington and Soldiers' Home, Great Falls, Maryland and Washington, and Rock Creek.

In the charters granted it is contemplated that in the future no railways using horse power or overhead wires shall be constructed within the city limits.

The use of one horse street cars are prohibited after January 1, 1893.

#### STEAM RAILWAYS.

The annoyance and dangers resulting from the numerous grade crossings of two great railroad systems are subjects of daily complaint.

There is at present no improvement of such vital importance to the interests of the city as the removal of these tracks from the surface of the streets.

In making the necessary changes the best interests of the city demand that the grade of the railway tracks shall be made dependent upon the established grades of the city streets. That plan should be adopted which leaves to the public the unobstructed use of the greatest number of its streets.

If the present routes are retained it is probable that the construction of elevated tracks would best fulfill the conditions required. Until a satisfactory solution of this problem is reached the railroad companies should provide gates and lamps at every street crossing in the city and immediate suburbs.

#### EXTENSION OF STREETS.

The necessity of legislation looking to the extension of the principal streets and avenues through the suburban subdivisions has been repeatedly urged, and it is hoped that definite action may soon be taken.

The subdivisions immediately around the city are so thoroughly improved that it is extremely improbable that the right of way for these streets can be obtained in any other way than by condemnation. It is certain that the cost will increase from year to year.

Unless some general scheme, similar to that introduced at the last session of Congress, can be carried out I would urge that special action be taken in the most important of the streets in each section.

In the western section Prospect street, Georgetown, should be opened

as far as the Foxhall Road. The construction of an electric railway on the Canal Road makes the opening of a new outlet to the westward imperative. The land through which it would pass is now wholly unimproved.

Sixteenth street should be opened, at least as far as Piney Branch. The construction of the cable and electric railways on Fourteenth and Seventh streets makes the opening of a safe driveway to the north of special importance. This street is also destined to be the principal thoroughfare leading to the new National Park. The improvement of Mount Pleasant is going on rapidly, and it will soon be necessary to purchase the right of way through almost solidly built blocks of houses.

A route to the Soldiers' Home grounds unobstructed by cable and electric railways is very much needed. Such a route can be secured by the opening of Rhode Island Avenue through Le Droit Park to First street NW. As this avenue has been dedicated between First street and Le Droit avenue, it would only be necessary to open it between Florida and Le Droit avenues.

In the northeast section of the city North Carolina avenue, which now terminates at Sixteenth street NE. should be opened to the Benning Road. The land is now wholly unimproved, and the right of way could be secured at no great expense. A broad highway leading into the city from the northeast is very desirable, and this can be most easily secured by opening North Carolina avenue to Benning road and then widening the latter east of its junction with the avenue.

#### ROCK CREEK VALLEY.

Attention is called to the encroachment upon the channel of Rock Creek made by the dumping of earth along both sides of the valley. Whatever disposition be made of this stream, whether it be arched or inclosed by walls and the banks terraced, it is of great importance that this dumping cease until some plan is adopted. The only way in which this can be effectually done is for the Government to purchase the land along both banks of the creek.

Respectfully submitted.

G. J. FIEBEGER,  
*Captain, Corps of Engineers.*

Capt. WILLIAM T. ROSSELL,  
*Engineer Commissioner.*



# 540 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Proposed schedule for 1893-'94.

## NORTHWEST.

Street.	From—	To—	Improvement.	Estimated cost.
N	North Capitol	Third	Pave	\$10,000
North Capitol	D	E	do	9,000
North Capitol	M	New York avenue	do	10,000
F	Twenty-second	New Hampshire avenue	do	20,000
U	Tenth	Fourteenth	do	15,000
S	New Hampshire avenue	Twentieth	do	16,000
D	New Jersey avenue	North Capitol	do	7,000
S	Seventh	Florida avenue	do	13,000
Missouri avenue	Four and a-half	Sixth	do	4,500
M	North Capitol	First	do	9,000
Seventeenth	E	B	do	24,500
V	Thirteenth	Fifteenth	do	14,700
Fifteenth	U	V	do	6,000
Tenth	T	U	do	8,000
First	K	Pierce	do	9,000
K	First	Third	do	10,000
T	Fourteenth	New Hampshire avenue	do	16,000
Oregon avenue	New Hampshire avenue	Eighteenth	do	8,000
Florida avenue	R	Q	do	10,000
Twenty-second	P	Massachusetts avenue	do	8,000
Florida avenue	Intersection Connecticut avenue.	R and Twenty-first	do	5,000
Virginia avenue	F	Eastward	do	20,000
First	P	O	do	5,000
W	Twelfth	Thirteenth	do	4,000
Florida avenue	First	North Capitol	Regulate and macadamize.	10,000
T	Seventh	Ninth	Pave	5,700
Total				277,400

## SOUTHWEST.

South Capitol	Canal	H	Pave	\$16,000
K	South Capitol	First	do	10,615
Canal (south side)	B	C	do	14,000
Eighth	E	H	do	13,000
Third	F	H	do	10,000
South Capitol	H	K	do	7,000
Delaware avenue	G	Southward		24,285
Total				94,900

## SOUTHEAST.

D	South Capitol	First	Pave	\$10,000
E	Eleventh	Thirteenth	do	13,000
Fifth	C	E	do	9,350
Fifteenth	East Capitol	Pennsylvania avenue	Grade and gravel.	10,000
Eighth	North Carolina avenue	Pennsylvania avenue	Pave	15,000
A	Seventh	North Carolina avenue	do	10,000
Eighth	East Capitol	North Carolina avenue	do	7,000
D	Ninth	Kentucky avenue	Grade and regulate.	4,000
Twelfth	Lincoln Park	Pennsylvania avenue	do	4,000
First	D	E	Pave	6,000
E	South Capitol	Third	do	18,000
Tenth	Pennsylvania avenue	I	do	15,000
I	Eighth	Eleventh	do	10,000
South Carolina avenue	Seventh	Ninth	do	6,000
C	Eleventh	Twelfth	do	4,000
Fourteenth	G	E	Grade and regulate.	1,000
Kentucky avenue	Lincoln Park	Toward Pennsylvania avenue.	do	1,650
Total				138,700

*Proposed schedule for 1893-'94.—Continued.*

## NORTHEAST.

Street.	From—	To—	Improvement.	Estimated cost.
Tenth .....	Maryland avenue .....	H .....	Pave .....	\$5,000
North Capitol .....	New York avenue .....	O .....	do .....	7,000
Second .....	C .....	F .....	do .....	13,000
M .....	North Capitol .....	Second .....	do .....	18,000
Fifteenth .....	East Capitol .....	E .....	Grade and gravel .....	10,000
C .....	Twelfth .....	Tennessee avenue .....	Grade and regulate .....	3,000
Fourth .....	H .....	K .....	Pave .....	8,000
Massachusetts avenue .....	Second .....	Fourth .....	do .....	17,000
Eleventh .....	Maryland avenue .....	Florida avenue .....	Grade and regulate .....	10,000
Massachusetts avenue .....	Eighth .....	Eleventh .....	Pave .....	20,000
Twelfth .....	East Capitol .....	Maryland avenue .....	Grade and regulate .....	5,000
Eleventh .....	East Capitol .....	Massachusetts avenue .....	Pave .....	4,000
Thirteenth .....	East Capitol .....	Emerson .....	Grade and regulate .....	4,000
M .....	Second .....	Florida avenue .....	Regulate and macadamize .....	12,000
Florida avenue .....	Ninth .....	M .....	do .....	12,000
B .....	Eighth .....	Ninth .....	Pave .....	4,950
D .....	Maryland avenue .....	Ninth .....	do .....	4,000
Total .....				156,950

## GEORGETOWN.

Road street .....	Thirty-second .....	Thirty-fifth .....	Pave .....	\$8,000
High (widened) .....	M .....	Canal .....	do .....	1,000
Twenty-eighth .....	M .....	P .....	do .....	16,000
Prospect .....	Thirty-sixth .....	Thirty-eighth .....	Grade and regulate .....	5,000
High .....	Thirty-fifth .....	U .....	Pave .....	18,000
Valley .....	U .....	P .....	do .....	7,000
U .....	High .....	Valley .....	do .....	7,050
Total .....				62,050

## SUBURBAN.

Champlain avenue .....	Florida avenue * .....	Columbia road* .....	Grade and regulate .....	\$10,000
Brightwood avenue .....	Irving .....	Rock Creek Church road .....	Pave .....	20,000
Roanoke and Irving .....	Seventh .....	Fourteenth .....	Grade and gravel .....	7,000
Yale and Bismarck .....	Seventh .....	Fourteenth .....	Grade .....	5,000
Princeton .....	Seventh .....	Thirteenth .....	do .....	5,000
Harrison .....	Monroe .....	Fillmore .....	Pave .....	7,000
Jefferson (Anacostia) .....			Grade and regulate .....	4,000
Michigan avenue .....	First W .....	Harewood .....	Grade .....	5,000
Pennsylvania avenue extended .....			Grade and gravel .....	10,000
Massachusetts avenue extended.† .....			Grade .....	10,000
Spruce .....	Bohrer .....	Harewood avenue .....	Pave .....	17,000
R .....	Florida avenue .....	Twenty-second .....	do .....	5,000
Minnesota avenue† .....	Pennsylvania avenue .....	Bennings .....	Grade .....	10,000
Total .....				115,000

\* Changing grade.

† And the authorities in charge of the Naval Observatory grounds are hereby authorized to dedicate the land necessary to extend said avenue through the grounds surrounding the new observatory.

‡ Providing the owners of abutting property dedicate sufficient land to widen said avenue to 90 feet, on such line as the Commissioners may accept.

## REPORT OF COMPUTING ENGINEER.

SIR: I have the honor to submit the following as the operations of this office during the fiscal year ending June 30, 1892.

Under the appropriation for improvement and repairs, work on streets and avenues, the following work has been done:

Asphalt pavement—	Sq. yards.
On hydraulic base .....	55,076.05
On bituminous base .....	11,730.00
On cobble .....	2,113.19
Asphalt-block pavement .....	19,475.86
Granite-block pavement .....	1,124.89
Macadam roadway .....	13,399.46
Cobble and flag in macadam roadways .....	4,248.55
Total .....	107,168.00

All the streets appropriated for have been completed except Florida avenue between Ninth and Fifteenth streets NE. This street when completed will add to the above amount 12,565.19 square yards of macadam and 4,313.07 square yards cobble and flag, making a total of 16,896.26 square yards, and a total of street improvement for the year 124,064.26.

Table A gives a detailed statement of this work and cost.

Under the appropriation for suburban streets and county roads the following work has been done by contract:

Asphalt pavement—	Sq. yards.
On hydraulic base .....	8,561.37
On bituminous base .....	4,621.22
Granite block pavement .....	7,357.53
Macadam .....	6,903.82
Gravel .....	3,926.32
Total .....	31,370.26

Grading on streets not otherwise improved, 75,930 cubic yards.

The details of this work are shown in Table B.

Under the appropriation for curbing and paving roadways, one-half the cost of which is paid by property, the following work has been done:

Asphalt pavement—	Sq. yards.
On hydraulic base .....	12,848.17
On bituminous base .....	3,366.12
On cobble base .....	1,696.99
Brick gutters .....	2,370.26
Total .....	20,281.54

Table C shows details and cost of this work.

Under the appropriation for grading streets and alleys, 130,126 cubic yards of grading have been done, at a cost of \$15,908.79, of which \$2,896.19 was expended for hire of carts, cars, etc. The detailed statement of this is shown in Table D.

In addition to this work the chain gang has been employed in grad.



ing the following streets: Fifteenth street NE., between C and F; E street NE.; streets in Rosedale subdivision; Kentucky avenue SE.; T street NE., between Lincoln avenue and Second street E.

Table E shows the work in connection with street improvements and repairs charged to and paid by the different street-railroad companies, amounting to \$26,144.78.

This office has been engaged in the preparation of estimates, the laying out, supervision, and measurement of all work under the several appropriations for surface improvements and repairs and permit work.

A considerable work has been done in the establishment of grades for suburban subdivisions. These have involved a good deal of labor, as owing to the scattered and detached positions of these subdivisions and the rough character of the country surrounding Washington it has been necessary to cover a good deal of intervening ground in order to determine grades suitable for continuous streets.

The usual work of furnishing grades for new buildings has been done by this office, and this, as well as the labor connected with permit work, is increasing from year to year.

In the performance of the work of this office during the past year, the assistants under my direction have been industrious and faithful, and the work has been promptly and well done.

Respectfully submitted.

GEO. H. BAILEY,  
*Computing Engineer.*

ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

TABLE A.—Schedule of streets and

Date.	Contract No.	Contractor.	Locality.	Square yards.	Price per square yard.	Contract work.
1891. July 20	1526	The Cranford Paving Co.	New York avenue NE., from North Capitol to Florida avenue.	5,392.80	\$2.25	\$13,991.64
			New York avenue NW., from Thirteenth to Fourteenth.	5,355.27	2.00	11,167.21
			Second SW., from E to F.....	510.70	2.25	1,705.12
			Second SW., from Maryland avenue to C.	2,223.82	2.25	7,616.66
July 20	1525	The Cranford Paving Co.	R NW., from New Hampshire avenue to Twentieth.	3,497.55	2.25	10,403.98
			T NW., from Ninth to Tenth.....	1,795.62	2.25	4,823.22
			N NW., from Twenty-second to Twenty-fourth.	2,196.28	2.25	7,676.99
			Caroline NW., from Fifteenth to Sixteenth.	1,325.04	2.00	3,571.39
			E SW., from Seventh to Thirteenth.	6,867.43	2.25	18,239.50
July 22	1535	The Barber Asphalt Paving Co.	Prospect NW., from Thirty-third to High.	2,113.19	1.20	6,844.78
			Thirty-sixth NW., from Prospect to O.	675.39	2.00	6,271.65
			N NW., from Thirty-fifth to Thirty-sixth.	2,327.64	2.00	3,171.99
			Prospect NW., from Thirty-fifth to Thirty-sixth.	1,080.61	2.00	2,371.68
July 22	1536	The Barber Asphalt Paving Co.	D NW., from Seventeenth to Eighteenth.	966.05	2.00	8,602.07
			Eighteenth NW., from D to E...	2,788.00	2.25	4,271.52
			Tenth NW., from S to T.....	1,544.00	2.25	5,446.53
			Riggs NW., from Sixteenth to Seventeenth.	1,947.76	2.25	4,118.32
			North Capitol from K to M.....	1,620.14	2.25	16,787.13
			U NW., from Fourteenth to Sixteenth.	6,207.28	2.25	10,543.60
			Third NE., from F to H.....	3,310.33	2.25	9,163.99
			Massachusetts avenue NE., from North Capitol to First.	3,833.98	2.25	11,488.31
July 14	1511	P. Maloney .....	Thirteenth, from T to Boundary.	4,068.89	2.25	19,938.17
			D (north side) SE., from Ninth to Pennsylvania avenue.	7,271.38	2.00	5,054.54
			North Carolina avenue SE., from Eighth to Eleventh.	1,951.42	2.00	15,746.39
			Eleventh SE., from East Capitol to C.	6,479.79	2.00	20,973.78
			Tenth SE., from D to Pennsylvania avenue.	8,076.09	2.00	2,020.92
July 10	1496	Andrew Gleason ....	C NE., from Eighth to Tenth....	788.12	2.00	5,971.73
July 21	1530	C. H. Eslin .....	M street SW., from Four-and-a-half to Sixth.	2,180.44	2.00	1,898.49
July 21	1531	C. H. Eslin .....	Florida avenue NE., from Ninth to Fifteenth.	1,124.89	.95	21,330.55
			Thirteenth street SE., from D to Pennsylvania avenue.	12,565.19	.99½	4,568.29
			North side Lincoln Square, from Eleventh to Thirteenth.	2,038.09	.95	4,752.29
			I street SE., from Second to Third	3,245.21	.95	2,120.48
			Second street SE., from I to Virginia avenue.	1,219.81	.95	1,864.33
July 21	1532	C. H. Eslin.....	Florida avenue, from First to Fourth	1,216.07	.95	8,062.52
July 10	1503	M. F. Talty.....	Pennsylvania avenue SE., from Eleventh to Bridge.	5,080.28	.99½	2,607.98
			Circle at intersection Connecticut avenue.			302.63

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 545

avenues.—Improvement and repairs, 1892.

Material.	Inspection.	Total cost.	Character of work.	Remarks.
\$2,815.94	\$241.00	\$17,048.58	Asphalt on hydraulic base.....	
106.01	137.00	11,460.22	Asphalt on bituminous base.....	\$50 added for removing trees.
521.96	66.00	2,293.08	Asphalt on hydraulic base.....	
2,308.79	88.00	10,013.45	.....do .....	Plus 307.72 square yards brick gutters.
1,854.27	144.00	12,402.25	.....do .....	
455.93	88.00	5,367.15	.....do .....	
1,882.45	74.00	9,633.44	.....do .....	Plus 298.68 square yards brick gutters.
1,111.00	64.00	4,746.39	Asphalt on bituminous base.....	
1,021.71	106.00	19,367.21	Asphalt on hydraulic base.....	Plus 829.06 square yards brick gutters.
261.53	176.00	7,282.31	Asphalt on bituminous base.....	
1,722.76	118.00	8,138.03	.....do .....	\$25.62 added for removing trees.
837.49	61.00	4,070.48	.....do .....	
520.22	33.00	2,924.90	.....do .....	
1,679.52	127.00	10,408.59	Asphalt on hydraulic base.....	
929.20	53.00	5,271.33	.....do .....	\$17.61 added for removing trees.
897.38	115.00	6,458.91	.....do .....	
960.44	64.00	5,142.76	.....do .....	
2,627.73	212.00	19,626.86	.....do .....	
2,218.68	298.00	13,154.85	.....do .....	\$94.57 added for removing trees.
	114.00	9,277.99	.....do .....	
613.94	140.00	12,242.25	.....do .....	
434.61	279.00	20,651.78	.....do .....	
1,029.35	84.00	6,167.89	Asphalt blocks .....	
2,151.25	288.00	18,185.64	.....do .....	
2,802.01	341.00	24,201.65	.....do .....	\$84.86 added for removing trees.
468.07	47.00	2,535.99	.....do .....	
1,272.96	95.00	7,339.69	.....do .....	
2,221.86	93.00	4,213.35	Granite blocks.....	
3,806.40	776.00	25,912.95	Telford macadam .....	
686.58	59.00	5,325.12	Telford macadam .....	\$11.25 added for removing trees, plus 894.46 square yards cobble and flag.
287.81	263.00	5,303.10	.....do .....	Plus 999.27 square yards cobble and flag.
83.11	149.00	2,352.59	.....do .....	Plus 382.20 square yards cobble and flag.
250.22	149.00	2,263.55	.....do .....	Plus 497.03 square yards cobble and flag.
763.80	397.00	9,802.01	.....do .....	\$578.69 added for dressing curb, plus 1,475.59 square yards cobble and flag.
357.20	71.00	3,036.18	Grading and sidewalk .....	
211.01	.....	513.64	Grading, curbing, and macadam..	Done by day labor under superintendent of streets.



TABLE B.—Suburban streets

Date.	Contract No.	Contractor.	Locality.	Grading.	
				Cubic yards.	Price.
1891. June 12	1460	The Barber Asphalt Paving Co.	Fourteenth street extended.....		
			Clifton street, from Fourteenth eastward.		
12	1461	.....do .....	Linden street from Florida avenue to Maple avenue.		
15	1470	The Cranford Paving Co....	Euclid avenue, from Fourteenth street to University Place.		
15	1469	.....do .....	Larch street, from Boundary to Spruce.		
			Maple avenue, from present pavement to Le Droit avenue.		
9	1454	Andrew Gleeson.....	Nichols avenue.....		
			Brightwood avenue, from Florida avenue to Grant avenue.		
			Illinois avenue .....	21,336	\$0.17
Nov. 6	1597	M. F. Talty.....	Pierce street, from Harrison to Jefferson.		
			Fillmore street, from Harrison to Jefferson.		
June 9	1463	.....do .....	Linden street, from Maple avenue to Pomeroy.		
30	1553	H. Naylor .....	Naylor road .....		
Oct. 1	1582	Andrew Gleeson.....	Fourth street extended.....	9,856	.163
Dec. 8	1609	L. Vaden & Co.....	Massachusetts avenue extended..	44,738	.173
		Total .....	.....	75,930	.....

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 547

and county roads, 1892.

Paving.		Contract work.	Material.	Inspection and engineering.	Total cost.	Remarks.
Square yards.	Price.					
4,307.19	\$2.25	\$12,269.39	\$2,086.63	\$104.50	\$14,460.52	Asphalt on hydraulic base.
2,220.97	2.00	5,732.50	218.57	48.00	5,999.07	Asphalt on bituminous base.
573.94	2.25	1,909.33	58.50	32.00	1,999.83	Asphalt on hydraulic base.
1,665.76	2.00	3,833.31	26.88	39.00	3,899.19	Asphalt on bituminous base.
734.49	2.00	1,877.53	-----	62.75	1,940.28	Do.
3,680.24	2.25	10,063.06	1,391.29	232.50	11,686.85	Asphalt on hydraulic base.
2,135.62	.90	2,949.07	3,940.15	90.00	6,979.22	Granite blocks.
5,221.91	.85	6,280.78	12,091.31	380.50	18,752.59	Do.
-----	-----	3,769.62	207.00	22.50	3,999.12	Grading.
2,876.32	.20	1,435.06	292.50	124.50	1,994.89	Gravel; \$142.83 added for curb dressing.
1,050.00	.20	952.63	383.89	37.50	1,374.02	Gravel.
3,579.82	.95	5,415.03	274.17	251.59	5,940.79	Macadam.
3,333.00	.90	2,999.70	-----	-----	2,999.70	Do.
-----	-----	1,872.64	-----	33.00	1,905.64	Grading.
-----	-----	8,322.91	578.40	380.84	9,282.15	Grading.
31,270.26	-----	69,682.56	21,549.29	1,839.18	93,213.86	

# 548 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Under the appropriation for grading streets, alleys, and roads the following work was done:

TABLE C.—Grading streets, alleys, and roads, 1892.

Date.	Contract.	Contractor.	Cubic yards.	Price per cubic yard.	Total.	Location.
1891.				Cents.		
July 30	1546	M. F. Talty.....	7,000	10	\$700.00	Streets in Petworth.
July 31	1550	C. C. Glover.....	5,781	10	578.10	Armsleigh Park.
Aug. 4	1552	D. B. Groff.....	7,000	10	700.00	Brightwood Park.
Sept. 29	1560	M. F. Talty.....	7,081	10	708.10	T street extended between Lincoln avenue and First street.
Aug. 27	1565	A. M. Bliss.....	8,000	10	800.00	Naylor farm.
July 28	1571	Hood & Batchelder.....	6,500	10	650.00	Addition to Anacostia.
Sept. 29	1581	W. H. Manogue.....	3,000	10	300.00	Twenty-seventh street, between N and O.
Oct. 2	1584	J. H. Gray.....	4,025	10	402.50	Q street, between North Capitol and First streets.
Nov. 3	1596	T. M. Steeps.....	3,000	10	300.00	Twenty-fifth street, above N street.
Oct. 31	1595	J. B. Taylor.....	5,551	10	555.10	Ontario avenue, between Florida avenue and Superior street.
Oct. 27	1598	A. M. Bliss.....	8,000	10	800.00	Naylor farm.
Aug. 24	1567	Dulaney & Whiting.....	3,115	10	311.50	Washington Heights.
Nov. 23	1606	G. Truesdell.....	7,916	10	791.60	Fifth street NE.
Dec. 10	1611	C. Brown.....	6,000	10	600.00	Ingleside subdivision.
Dec. 11	1613	H. T. Simpson.....	2,070	10	207.00	Tenth street between N and O streets SE.
Dec. 7	1614	R. A. Johnson.....	3,000	10	300.00	Q street NE.
Dec. 29	1615	F. W. Huidekoper.....	4,737	10	473.70	Burleith.
Nov. 10	1616	J. J. Edson.....	5,000	10	500.00	Cooke Park.
Aug. 3	1570	H. Barton.....	5,000	10	500.00	Omaha street.
Nov. 10	1638	J. F. Batchelder.....	2,000	10	200.00	Duncan place, between Twelfth and Thirteenth streets NE.
Jan. 25	1643	W. K. Schoepf.....	3,840	10	384.00	Moore's tract.
July 28	1539	C. M. McClay.....	1,100	10	110.00	Tenth street SE., between N and O streets.
Dec. 9	1610	W. K. Schoepf.....	7,000	10	700.00	Moore's tract.
	Order.	J. D. Kitch.....	425	10	42.50	Alley, square 878.
	Order.	F. S. Carmody.....	645	10	64.50	Alley, square 861.
	Order.	S. Carmody.....	150	10	15.00	Alley, square 721.
	Order.	Barnes & Weaver.....	560	10	56.00	Elm street, between Larch and Linden streets.
	Order.	W. K. Schoepf.....	1,000	10	100.00	Moore's tract.
	Order.	J. S. Belt.....	427	10	42.70	Elm street, between Harewood avenue and Le Droit avenue.
July 28	1547	R. F. Morris.....	4,030	10	403.00	M street NE. extended.
1892.						
Mar. 28	1622	E. B. Cottrell.....	2,173	10	217.30	Palisades of the Potomac.
June 22	1645	L. Vaden.....	5,000	10	500.00	Morgan street.
					13,012.60	
Expended for tool care, hire of carts, etc .....					2,896.19	
					15,908.79	

The following is in progress, but not completed:

Contractor.	Locality.	Cubic yards.	Limit of amount.
Swormstedt & Bradley .....	Roanoke street.....	400	\$40.00
B. F. Leighton .....	Alley, square 75.....	200	20.00
Edw'd Temple .....	Shannon Place.....	2,000	200.00
E. P. Cottrell.....	Palisades of Potomac.....	7,827	782.70
C. M. Campbell.....	Harvard street.....	1,500	150.00
B. H. Warner .....	Third street, NE.....	1,000	100.00
C. Mantz .....	Yale street.....	1,000	100.00
W. H. Manogue.....	Rosedale.....	1,000	100.00
W. K. Schoepf .....	Moore tract.....	5,000	500.00
Geo. E. Emerson .....	Square 24.....	2,500	250.00
W. H. Barstow.....	Oregon avenue.....	500	50.00
R. Sherman .....	Center Eckington.....	2,500	250.00



TABLE D.—Permit work, curbing and paving roadways, 1892.

Date.	Contract No.	Contractors.	Locality.	Grading. Cu. yds.	Paving. Sq. yds.	Price.	Contract work.	Material.	Inspection.	Total.	Remarks.
1891. Oct. 13	1592	The Barber Asphalt Paving Co.	First street NE. from R to alley .. Le Droit avenue NW. from Florida avenue to Maple avenue. Le Droit avenue NW. from Maple avenue to U street. First street NW. from R to S..... Third street NE. from R to Quincy. Quincy street NE. from Third to Eckington line. Wellington place NW. from Fourteenth street to University place. Thirteenth street NE. from Maryland avenue to H street. Emerson street NE. from Thirteenth to Fourteenth. Q street NE. from Lincoln avenue to First street. Q street NE. from First street to Eckington place. Morgan place from Thirteenth street NE. to Fourteenth. Cambridge place, Georgetown. Irvin place, Georgetown. Avon place, Georgetown. New Jersey avenue, Petworth. Omaha street, Petworth.	209 702 1,237 67 95 2,036 760 350 420 280 4,297 476	537.73 *3,995.34 *1,463.66 *1,696.99 *1,009.95 *798.63 *1,548.18 *1,725.22 *1,641.80 *2,015.86 *1,478.52 *1,134.19	\$2.25 2.25 2.25 1.20 2.25 2.25 2.25 2.00 2.00 2.25 2.25 2.25	\$1,436.96 10,845.21 4,494.57 3,220.23 2,735.95 2,626.92 4,218.14 4,139.31 4,164.63 5,527.49 4,982.60 3,450.75	\$258.49 2,135.10 841.21 190.56 617.95 594.92 228.83 216.50 324.24 1,257.78 914.21 977.16	\$16.50 99.30 38.90 38.50 46.00 36.00 91.25 50.50 54.00 44.00	\$1,711.95 13,079.61 5,374.68 3,449.29 3,376.90 3,244.84 4,482.97 4,401.44 4,534.49 6,835.77 5,950.81 4,471.91	Including \$98 for removing trees. Including \$152.58 for removing trees. Asphalt on macadam. \$391.20 included for grading done by Talty. \$304 included for grading done by Talty. \$151.31 included for curb hauled by Talty. \$773.22 included for grading done by Talty.

\*2,370.26 square yards brick gutters.

†No work done.

TABLE E.—Work done for railroad companies.

Company.	Locality.	Square yards.	Cubic yards.	Total cost.
Capitol, O Street and South Washington R. R. Co.	Eleventh street NW., from G to M.....		1.11	\$34.21
	Fourteenth street NW., from B to D .....		23.37	655.27
	E street NW., from Ninth to Tenth .....	361.00		640.86
	F and First streets .....	15.33		24.35
	Ninth and P streets .....		2.16	66.55
	Fifth and Sixth streets at P .....		3.40	99.43
	New Jersey avenue, from O to P street .....		4.34	130.78
	O street from Fourth to Seventh .....		.07	1.40
	Thirteenth street and Ohio avenue.....		.13	2.70
	Ninth and E streets .....			57.74
	First and E streets .....		.06	1.37
Total .....		376.33	34.64	1,714.66
Rock Creek R. R. Co.....	U street, from Fourteenth to Sixteenth .....	488.14		1,197.13
Eckington and Soldiers' Home R. R.	New York avenue, from Sixth to Seventh street.....	12.75		20.87
	Fifth street and Massachusetts avenue.....	43.60		61.88
	Thirteenth and G streets.....	2.55		3.60
	G street, from Seventeenth to Thirteenth.....		1.81	30.77
	New York avenue, from North Capitol street to Florida avenue.....	3,320.77		7,733.72
	G street, from Twelfth to Thirteenth.....		.09	1.53
Total .....		3,379.76	1.90	7,852.37
Anacostia and Potomac River R. R.	M street SW., from Four and a-half to Sixth.....	250.69		738.78
	Nichols avenue .....	345.79		1,001.83
	Second street SW., from C to Virginia avenue.....		20.33	615.87
	Second and H streets SW.....		2.30	69.82
	Second street SW., from E to F .....	138.71		338.45
	Eighth and G streets SE.....		.32	7.61
	Second street and Maryland avenue .....	193.90		785.44
	Third street and Maine avenue.....	.12		2.04
Total .....		929.21	22.95	3,559.84
Columbia R. R. Co .....	Massachusetts avenue, from Fourth to Seventh street.....	39.27		59.68
	Eleventh street and New York avenue.....		.06	1.50
	Ninth and K streets.....		.17	4.08
	Fourteenth street and New York avenue.....		6.08	20.96
	K street, from Seventh to Ninth.....		1.93	45.27
Total .....		39.27	8.24	131.49
Metropolitan R. R. Co.....	Ninth street NW., from Pennsylvania avenue to P street.....		39.87	1,094.10
	F street NW., from Fifth to Fourteenth street.....	115.64	.74	237.90
	Connecticut avenue, from M street to Boundary.....		15.27	453.88
	Twentieth and P streets.....		.13	3.12
	Fourteenth street, from New York avenue to H street.....	80.86		151.76
	Brightwood avenue.....	562.40		1,613.76
	B street NE., from Delaware avenue to First street.....		.10	1.70
	P street bridge approach .....		.18	3.06
	Twentieth and P streets.....		.14	2.38
	F street from Twelfth to Thirteenth.....		.68	11.56
Total .....		757.90	57.01	3,573.22
Washington and Georgetown R. R.	Fourteenth street extended.....	1,281.22		3,106.90
	B street from, New Jersey avenue to Second street.....	539.91		1,308.76
	Fourteenth street, from New York avenue to Massachusetts avenue.....	2,010.71		4,463.10
	Pennsylvania avenue, from Circle to Twenty-sixth street.....		.07	1.47

TABLE E.—Work done for railroad companies—Continued.

Company.	Locality.	Square yards.	Cubic yards.	Total cost.
Washington and Georgetown R. R.—Continued.	Seventh street, from Pennsylvania avenue to C street.	.....	.16	\$7.08
	Pennsylvania avenue, from Four-and-a-half to Fourteenth street.	.....	.82	21.33
	Pennsylvania avenue, from bridge to Twenty-ninth street.	.....	.18	3.06
	Sixth, from E to F streets	.....	.16	2.72
	New Jersey at C street.....	261.43	.....	898.89
Total .....	.....	4,093.27	1.39	9,313.20

## REPORT OF SUPERINTENDENT OF STREETS.

OFFICE OF THE SUPERINTENDENT OF STREETS,  
Washington, D. C., August 20, 1892.

SIR: I have the honor to submit the following report of the operations of this office for the fiscal year ending June 30, 1892. The appropriation for current repairs to streets, avenues, and alleys was \$45,000, of which amount \$44,996.74 was expended; balance \$3.26. (See statement marked A.)

A.—Work done under appropriation for current repairs to streets, avenues, and alley from July 1, 1891, to June 30, 1892.

Grading .....	cubic yards..	2,625
Flag laid .....	linear feet..	17,403
Curb set .....	do....	1,588
Curb reset .....	do....	8,618
Cobble paved .....	square yards..	27,776
Brick paved .....	do....	9,287
Asphalt tile paved .....	do....	839
Granite block paved .....	do....	3,286
Vitrified brick paved .....	do....	5,661
Old asphalt broken and spread on roadways .....	do....	2,600
Sheet asphalt .....	do....	261
Vitrified tile .....	do....	1,016
		<hr/>
Material .....	cost..	\$11,380.48
Labor .....	do....	24,530.42
Miscellaneous labor .....	do....	6,169.37
Foremen's labor .....	do....	2,916.47
		<hr/>
Total cost .....		44,996.74

During the year there were 1,013 dangerous holes repaired, aggregating 2,679 square yards, at a total cost of \$1,218.48.

The act of Congress approved March 3, 1891, appropriates \$165,000 for permit work, \$122,958.02 of which was allotted to the street department. The act provides "that under the permit system the property owners requesting such improvements shall pay one-half the total cost." The expenditures under such provision were \$45,195.36, as shown by statement marked B.



No.	For whom done.	Grad- ing.	As- phalt block.	As- phalt tile.	Pav- ing brick.	Vitri- fied brick.	Cob- ble.	Gran- ite block.	Curb set.	Curb reset.	Flag laid.
		<i>Qu. yd.</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>
1	C. W. Simpson.....	100			524				393		
2	W. Winthrop.....	20				151			30		
3	A. B. Mullett & Co.....								25		
4	Emmons & King.....	112			942						
5	J. S. Larcomb <i>et al.</i> .....				63						
6	Albert Gleason.....	550			725		227		672	18	
7	George A. McIlhenny.....			144							
8	C. A. Shields.....	30			88						
9	E. Kurtz Johnson.....										
10	John G. Judd.....										
11	George E. Lemon.....								130		
12	George Truesdell.....	75	4,455						60		
13	T. F. Schneider.....				54					31	
15	Henry Murray.....			40							
16	F. A. Gardner.....			48							
17	George Swartzell.....				147						
18	Swormstedt & Bradley.....	93	111								
19	Charles Early.....										
21	E. J. Hannan.....	42			50						
22	Swormstedt & Bradley.....	160					568				1,274
23	Charles E. Banes.....	300			796						
24	James F. Hood, presi- dent.....	2,885			2,566		1,754				465
25	L. P. Graham.....										
26	Mrs. H. B. Coolidge.....										
27	Thos. E. Waggaman and Geo. Pilling.....				144						
28	John F. Waggaman.....				147						
29	John F. Waggaman.....				111						
30	John Shanahan.....				150						
32	O. L. Pitney.....										
33	Barr & Sanner.....			96							
34	J. A. Healey.....			75							
35	Louis E. Payson <i>et al.</i> .....										
36	Geo. E. Emmons.....				268						
37	W. H. Easton.....			20							
38	Geo. P. Newton.....	84			168						
39	John A. Baker.....										
40	Jacob Fussell.....	255				13	385				
41	J. A. Walter <i>et al.</i> .....			616							
42	H. L. Rust.....	12		100			17		76		
43	T. F. Schneider.....					75					
44	J. T. Sowers <i>et al.</i> .....			447							
46	T. W. Bedford.....	10		262					174	23	
47	Swormstedt & Bradley.....				80						
48	Alex. Miller.....				100		12		78		
49	Henry Strong.....								134		
50	J. H. Merriweather.....	90			159						
52	J. S. Larcomb.....										
53	James F. Denson.....										
54	E. Kurtz Johnson.....									00	
55	Barnes & Weaver.....				54						
56	Emmert & Haisley.....								73		
57	Geo. Truesdell.....	6	125								
58	W. P. Burch.....				23						
59	W. B. Edmonston.....										
60	Arabella Lambert.....										
61	T. F. Schneider.....				20					18	
62	E. G. Davis.....				68					50	
63	Thos. W. Smith.....	50		290				12		130	
64	L. Simmons.....	15			112						
65	Williams Bros.....				508						
66	L. Simmons.....				117						
67	C. A. Shields.....	133			170		12				44
68	C. S. Bundy, agent.....	90		64							
69	Stockett & Batchelder.....	1,400			356				400		
70	R. Harris & Co.....			36							
71	G. H. Dana, president.....	583			602		23				
72	O. C. Green.....						14			124	
73	J. F. Jarvis.....			66							
74	W. W. Mosby, secretary.....	204			312		13				20
75	R. A. Phillips.....	6			110						
76	Williams Bros.....				250						
77	C. W. Simpson.....	100			177				148		
78	Sheldon Jackson.....								133		
79	Dr. J. D. Morgan.....								25	4	
81	Emeline D. Lovett.....				76				25		
82	Thos. W. Smith.....										
83	W. C. Shelly.....	24		107							
84	J. B. Bloss.....	15			50						
85	S. J. Meeks.....	166			70				100		
86	E. P. Jones.....				180						

No.	For whom done.	Grading.	Asphalt block.	Asphalt tile.	Paving brick.	Vitrified brick.	Cobble.	Granite block.	Curb set.	Curb reset.	Flag laid.
		<i>Cu. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Sq. yds</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>	<i>Lin. ft.</i>
87	Chas. B. Pearson .....										
89	A. and J. W. Frey .....	220			181				130		
90	C. H. Parker .....						34		120		
91	E. F. Wescott .....	33			00						
92	Wm. M. Williams, secretary .....	132			396						
93	Thos. J. Fisher & Co. ....			300							
94	Albert Gleason .....	54							245		
95	Wm. H. Shock .....								22		
96	Wm. H. Shuster .....								23		
97	L. C. Bailey .....								22		
98	Philetus Sawyer .....								246		
99	Thos. P. Simpson .....					653					
100	Lawrence Sands .....								300		
101	G. O. Weston .....										
102	E. S. Randall .....					76					
103	Wright & Stockett .....										
104	Chas. W. King .....										
105	R. I. Fleming .....						128				
106	H. T. Wright <i>et al</i> .....			277							
107	P. B. S. Pinchback .....										
108	Paul Jones <i>et al</i> .....							647		115	
109	John W. Morris .....										
110	Mrs. B. Bryan .....										
111	Henry Hurt .....										
112	Mrs. Goff .....								81		
113	Albert Gleason .....								72		
114	R. C. Glascock .....									21	
117	John F. Doran .....										
118	A. Nailor, jr. ....								25		
119	Wm. H. Manogue .....										
120	J. S. Poole <i>et al</i> .....								129		
121	Clif. D. Maxwell .....			45					12		
122	R. H. Goldsborough .....								203		
	Total .....	8, 245	4, 691	3, 033	11, 21 0	968	3, 187	659	4, 408	594	1, 803

[illegible]

## 554 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

No.	For whom done.	Cran- ford grano- lithic.	Schill- inger.	Pull- man cement.	Burlew cement.	Rich- ardson cement block.	Drew cement	Sheet.	Vitri- fied tile.	Cost.
		Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	
39	John A. Baker.....	56								\$117.47
40	Jacob Fussell.....									249.72
41	J. A. Walter <i>et al</i> .....									1,097.84
42	H. L. Rust.....									289.43
43	T. F. Schneider.....									118.69
44	J. T. Sowers <i>et al</i> .....									702.96
46	T. W. Bedford.....									376.38
47	Swormstedt & Bradley.....									63.08
48	Alex. Miller.....									190.18
49	Henry Strong.....	256								758.79
50	J. H. Merriweather.....									135.88
52	J. S. Larcomb.....	37								82.59
53	James F. Denson.....	79								181.74
54	E. Kurtz Johnson.....	178								405.42
55	Barnes & Weaver.....									39.61
56	Emmert & Heisley.....						77			320.78
57	Geo. Truesdell.....									313.45
58	W. P. Burch.....									19.72
59	W. B. Edmonston.....	60								133.06
60	Arabella Lambert.....						43			91.70
61	T. F. Schneider.....									17.10
62	E. G. Davis.....									35.48
63	Thos. W. Smith.....									532.42
64	L. Simmons.....									80.60
65	Williams Bros.....									362.47
66	L. Simmons.....									83.48
67	C. A. Shields.....									126.99
68	C. S. Bundy, agent.....									118.84
69	Stockett & Batchelder.....									834.68
70	R. Harris & Co.....									65.29
71	G. H. Dana, president.....									480.72
72	O. C. Green.....					144				360.80
73	J. F. Jarvis.....									120.49
74	W. W. Mosby, secretary.....									229.18
75	R. A. Phillips.....									50.70
76	Williams Bros.....									178.38
77	C. W. Simpson.....									308.36
78	Sheldon Jackson.....	90								424.84
79	Dr. J. D. Morgan.....	33								104.63
81	Emeline D. Lovett.....									98.64
82	Thos. W. Smith.....									196.78
83	W. C. Shelley.....									52.29
84	J. B. Bloss.....									194.31
85	S. J. Meeks.....									146.83
86	E. P. Jones.....	23								68.86
87	Chas. B. Pearson.....						50			107.94
89	A. and J. W. Frey.....									308.84
90	C. H. Parker.....								113	278.21
91	E. F. Wescott.....									64.75
92	Wm. M. Williams, sec- retary.....									225.97
93	Thos. J. Fisher & Co.....									538.10
94	Albert Gleason.....		281							830.74
95	Wm. H. Shock.....	23								78.85
96	Wm. H. Shuster.....	26								83.93
97	L. C. Bailey.....	24								80.71
98	Philetus Sawyer.....					306				979.68
99	Thos. P. Simpson.....									782.38
100	Lawrence Sands.....									389.94
101	G. O. Weston.....			92						200.09
102	E. S. Randall.....									188.82
103	Wright & Stockett.....		20							46.86
104	Chas. W. King.....		26							47.63
105	R. I. Fleming.....							128		391.06
106	H. T. Wright <i>et al</i> .....									388.30
107	P. B. S. Pinchback.....		48							89.02
108	Paul Jones <i>et al</i> .....									2,400.01
109	John W. Morris.....		22							40.48
110	Mrs. B. Bryan.....		24							45.46
111	Henry Hurt.....	23								44.25
112	Mrs. Goff.....		128							245.82
113	Albert Gleason.....		86							246.83
114	R. C. Glascock.....		24							47.59
117	John F. Doran.....		29							53.37
118	A. Nailor, jr.....	30								114.86
119	Wm. H. Manogue.....		136							230.87
120	J. S. Poole <i>et al</i> .....			131						182.78
121	Clif. D. Maxwell.....									74.72
122	R. H. Galdsborough.....									201.27
	Total.....	1,544	824	223	239	450	170	128	113	41,776.89



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 555

The following is a statement of work done under the provisions of the permit system, the owners paying one-half of the cost of same, the work having been commenced before the close of fiscal year of 1891 and finished during fiscal year of 1892:

No.	For whom done.	McLaughlin granolithic.	Schillinger.	Curb set.	Cost.
		<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Linear feet.</i>	
118	A. C. Clark.....	69			\$151.96
119	W. S. Teel.....	32			70.83
120	M. G. Emery.....	42			94.65
121	D. G. Swaim.....		80		203.32
122	W. A. Kimmell.....	32			75.78
123	Walker & Wood.....	55		18	122.38
124	L. C. Rauterberg.....	32			69.49
125	Belva A. Lockwood.....	40			87.20
126	A. Behrend.....	64			140.20
127	A. P. Lacey.....	48			110.88
128	George W. Cochran.....	390		290	1,284.45
129	J. B. Cralle.....	235			510.80
130	Wm. Hahn.....	55			123.98
131	R. Proctor.....		27		60.52
133	A. B. Mullett & Co.....	35			73.25
134	Morris Hahn.....	57			118.92
135	Calvin Witmer.....	57			119.86
	Total.....	1,243	113	308	3,418.47

The following work was done, parties paying total cost of same, it having been begun before the close of the fiscal year of 1891 and finished after the close of the fiscal year of 1892.

No.	For whom done.	McLaughlin granolithic.	Schillinger.	Curb set.	Cost.
		<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Linear feet.</i>	
40	A. C. Clark.....	69			\$27.68
41	W. S. Teel.....	32			12.89
42	W. A. Kemmell.....	32			12.60
43	Walker & Wood.....	55			21.84
44	M. G. Emery.....	42			16.83
45	L. C. Rauterberg.....	32			12.59
46	Belva A. Lockwood.....	40			15.98
47	A. Behrend.....	64			25.50
48	A. P. Lacey.....	48			19.32
49	George W. Cochran.....	390			155.98
50	do.....	137			329.88
51	J. B. Cralle.....	235			94.02
52	William Hahn.....	55			21.81
53	R. Proctor.....		18		36.28
55	A. B. Mullett & Co.....	35			13.95
56	Morris Hahn.....	57			22.61
57	Calvin Whitmer.....	57			22.78
	Total.....	1,380	18		862.54

The act also provides: "That the commissioners of the District of Columbia are authorized, in their discretion, to order such of the above-enumerated work as, in their opinion, is necessary for the public health, safety, or comfort, and to pay the total cost of such work from said appropriation; one-half the cost of such work so done, including material and labor, shall be charged against and become a lien upon the property abutting upon the line of such improvement," etc.

Under this provision the expenditures have been \$112,763.62, as shown by statement marked C.

TABLE C.

No.	Location.	Grading.	Asphalt block.	Asphalt tile.	Paving brick.	Vitrified brick.	Cobble.	Curb set.	Flag laid.	Pullman cement.	Cost.
		Cu. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Lin. feet.	Lin. feet.	Sq. yards.	
1	Alley, square 579.....	200	413								\$1,057.00
2	Alley, square 192.....	278	851								1,902.26
3	Alley, square 208.....					1,039					1,877.80
4	Alley, square 890.....	264				915					1,756.80
5	Alley, square 867.....					2,215					4,217.30
6	Alley, square 674.....					869		18			1,608.27
7	Alley, square 211.....	240				748					1,597.83
8	Alley, square 193.....	128				370					676.56
9	Alley, square 818.....					558					1,107.94
10	Alley, square 551.....	2,000				2,660					4,869.08
11	Alley, square 618.....	98				249					518.69
12	Alley, square 370.....	156				306					554.58
13	Alley, square 829.....	150			36	832		59			1,703.08
14	Alley, square 387.....	221				540					906.90
15	Alley, square 779.....	272				1,014					1,876.37
16	Alley, Sixth and Seventh, Pomeroy and Trumbull NW.....					520					954.10
17	Alley, square 686.....	393				1,467					2,491.89
18	Alley, square 858.....	225				2,043					3,528.42
19	Alley, square 514.....	90	168								453.90
20	Alley, square 471.....					1,428		80			2,996.86
21	Alley, square 132, south half.....					637		30			1,226.72
22	Sidewalks both sides Nineteenth, between L and M NW.....	642			3,852						1,404.40
23	Alley, square 732.....					776					1,542.50
24	Alley, square 247.....	389	2,130								5,038.12
25	Sidewalks, both sides H street, between North Capitol and Fourth NW.....	400			4,342						1,721.85
26	Sidewalk, west side Ninth street, between O and W, via Florida avenue.....				3,861						1,314.37
27	Sidewalk, south side Pennsylvania avenue, between Second and Third SE.....			556							966.49
29	Alley, square 780.....	2,462				2,440		40			5,243.42
30	Alley, square 282.....					535		24			962.81
31	Alley, square 518, south half.....	98	139								434.17
32	Sidewalk, south side M street, from number 3232 to Market, Georgetown.....				270						143.65
33	Sidewalk, O street, between Fourth and Seventh NW.....				1,154						1,375.22
34	Sidewalk, north side M street, between Thirty-second and Potomac, Georgetown.....				670						409.77
35	Sidewalk, both sides Q street, between Fifteenth and Sixteenth NW.....				1,112						469.00
36	Alley, square 721, south half.....	360				647					1,227.99
37	Alley, square 172.....					1,925					3,372.44
38	Sidewalk, north side M street, between Thirty-third and Potomac, Georgetown.....				127						65.21
39	Alley, rear 501 to 523 Florida avenue NW.....	266				250					605.62
40	Alley, square 560.....	16	40								106.01
41	Sidewalks, both sides E street, between Fifth and Thirteenth NW.....				8,965						3,025.80
42	Sidewalks, both sides L street, between Fourteenth and Sixteenth NW.....				2,546						727.87

TABLE C—Continued.

No.	Location.	Grading.	Asphalt block.	Asphalt tile.	Paving brick.	Vitrified brick.	Cobble.	Curb set.	Flag laid.	Pullman cement.	Cost.
		Cu. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Sq. yards.	Lin. feet.	Lin. feet.	Sq. yards.	
43	Alley, square 594.....	43				510					\$752.86
47	Sidewalk, southwest corner Second and B streets NW.....				573						338.50
48	Sidewalk, east side First street, between G and H NW.....				507						244.34
49	Sidewalk, south side B street, between New Jersey avenue and First SE.....				514						286.16
50	Sidewalk, F street, be- tween Four-and-a- half and Sixth SW.....				1,296			52			549.52
51	Sidewalk, east side Fourth street, be- tween D and E NE.....	55			197						178.61
52	Sidewalk, north side Q street, between Thirteenth and Four- teenth NW.....			800							1,299.47
53	Sidewalks, both sides O street, between Ninth and Tenth NW.....				1,165			250			520.00
54	Sidewalk, west side square 111.....				758						330.15
55	Sidewalks, east side Flor- ida avenue, between Ninth and Tenth NW.....				551			20			390.83
56	Sidewalk, north side G street, between Ninth and Tenth NW.....				180						84.97
57	Sidewalks, both sides N street, between Madi- son and Seventh NW.....				389						150.58
58	Sidewalk, south side F street, between Twentieth and Twen- ty-first NW.....				520						212.52
60	Sidewalks, Thirteenth street, between I and Florida avenue NE.....	160			240			24			182.37
61	Alley, square 944.....	440				1,155					2,515.12
62	Sidewalk, east side Half street, between M and N SE.....	142			287						211.16
63	Sidewalk, west side Twentieth street, be- tween M and N NW.....				455						339.71
64	Sidewalk, south side Massachusetts ave- nue, between Twelfth and Thirteenth NW.....				300						130.16
65	Alley, square 73.....	1,115				2,324					4,774.63
66	Alley, square 943.....	189				490					1,046.23
67	Alley, square 513.....	32	211								566.98
68	Alley, square 996.....	400				779					1,452.47
70	Sidewalk, front No. 1513-1519 Twenty- eighth NW.....				90						42.62
71	Sidewalk, north side Elm street, between Hudson and Le Droit avenues.....	184			240						241.61
72	Sidewalk, north side K street, between Fif- teenth and Sixteenth NW.....									538	1,006.39
73	Sidewalk, east side Thirteenth street, be- tween B and North Carolina avenue SE.....				230						164.11
74	Sidewalks, both sides Fifth street, between M and O streets NW.....				2,317						1,065.90
76	Alley, square 205.....	386				3,291		65			5,592.00



TABLE C—Continued.

No.	Location.	Grading.	Asphalt block.	Asphalt tile.	Paving brick.	Vitrified brick.	Cobble.	Curb set.	Flag laid.	Pullman cement.	Cost.
		<i>Cu. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Sq. yards.</i>	<i>Lin. feet.</i>	<i>Lin. feet.</i>	<i>Sq. yards.</i>	
78	Alley, square 180, north half.....					659					\$1,336.34
81	Sidewalks, both sides Seventeenth street, between P and Massa- chusetts avenue NW.....			955				200			1,815.30
82	Alley, square 733.....	65				111					210.77
84	Alley, square 546, north half.....	62				1,006					1,666.71
85	Alley, square 917.....					603					1,227.48
86	Alley, square 210.....		223								652.85
88	Alley, square 622.....					528					982.60
89	Alley, square 335.....	92				141					292.35
90	Alley, square 444.....					1,036		48			1,879.36
92	Sidewalk, north side K street, between Four- teenth and Vermont avenue NW.....							338		391	1,163.21
95	Alley, square 1033.....	349				444			20		882.28
96	Alley, square 139.....					586					1,057.03
101	Alley, square 51.....					1,659		58			3,015.56
104	Alley, square 935.....					1,170					2,299.50
105	Alley, square 677.....					131					244.97
108	Sidewalk, north side M street, between Eighteenth and Nine- teenth NW.....			108							886.93
109	Alley, square 686.....	36				199					367.00
112	Sidewalk, front NW. 1518-22 P street NW..			45							65.35
	Total.....	13,074	4,175	2,690	37,744	41,814		1,316	20	929	112,763.62

Table marked "D" gives the amount of work done for parties ordering the construction of driveways and other pieces of work that were needed for their sole benefit, and not for the use of the general public, which amounts to \$2,258.21.

TABLE D.

No.	For whom done.	Grad- ing.	Asphalt block.	Asphalt tile.	Paving brick.	Vitri- fied brick.	Cobble.	Granite block.	Curb set.
		<i>Qu. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Lin. ft.</i>
1	John Warden .....					11			
2	Sievers & Bro. ....					8			
3	E. Kurtz Johnson .....								
4	John G. Judd .....								
5	Geo. E. Lemon .....								
6	Osborn & Hoban .....			6					
7	Chas. Early .....								
8	L. P. Graham .....								
9	Mrs. H. B. Coolidge .....								
10	John Shanahan .....				99				
11	O. L. Pitney .....					10			
12	Lewis E. Payson .....								
14	J. A. Healy .....			24					
15	H. H. Wainwright .....							10	
16	John A. Baker .....								
17	Wm. M. Galt & Co .....		136						
18	John S. Larcomb .....								
19	James F. Denson .....								
20	E. Kurtz Johnson .....								
21	Emmert & Heisley .....								
22	Chas. Edmondston .....								
23	W. B. Gray .....			6					
24	Arabella Lambert .....								
25	Capitol, North O and South Washington R. R. Co. ....							33	
26	Swormstedt & Bradley .....	65							
27	Thos. W. Smith .....					22			
28	W. S. Fowler .....					11			
29	C. S. Bundy, agent .....		7						
30	Thos. J. Biggains .....					10			
31	R. A. Phillips .....	2			10				
32	E. G. Shafer & Co .....					19			7
33	A. Mille .....	4				12			
34	Daniel Johnson .....					9			9
36	Sheldon Jackson .....								
37	Sheldon Jackson .....								18
38	Dr. J. D. Morgan .....								
39	T. F. Schneider .....					5			
40	E. P. Jones .....								
41	Geo. E. Emmons .....					20			
42	Chas. B. Pearson .....								
43	Joseph Parris .....		390						56
44	Wm. H. Shock .....								
45	Wm. M. Shuster .....								
46	L. C. Bailey .....								
48	G. O. Weston .....								
50	Wright & Stockett .....								
51	Chas. W. King .....								
52	Albert Gleason .....								
53	Albert Gleason .....								
54	R. C. Glascock .....								
55	John W. Morris .....								
56	Mrs. B. Bryan .....								
57	Henry Hurt .....								
58	Mrs. Goff .....								
59	P. B. S. Pinchback .....								
60	J. F. Doran .....								
61	A. Nailor, jr .....								
62	Wm. H. Manogue .....								
63	R. I. Fleming .....						16		
64	C. H. Parker .....								
Total .....		71	533	36	109	137	16	43	90

TABLE D.

No.	For whom done.	Curb reset.	Cran- ford grano- lithic.	Schil- linger.	Pull- man cement.	Drew cement.	Sheet.	Vitri- fied tile.	Cost.
		<i>Lin. ft.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	
1	John Warden .....	8							\$19.80
2	Sievers & Bro. ....	8							15.58
3	E. Kurtz Johnson .....		60						51.17
4	John G. Judd .....		105						89.42
5	Geo. E. Lemon .....		211						179.05
6	Osborn & Hoban .....								1.69
7	Chas. Early .....		69						58.79
8	L. P. Graham .....		36						30.92
9	Mrs. H. B. Coolidge .....		74						63.17
10	John Shanahan .....								62.53
11	O. L. Pitney .....		42						35.53
12	Lewis E. Payson .....								17.99
14	J. A. Healy .....								60.32
15	H. H. Wainwright .....								5.12
16	John A. Baker .....		56						47.55
17	Wm. M. Galt & Co .....								252.97
18	John S. Larcomb .....		37						8.87
19	James F. Denson .....		79						79.98
20	E. Kurtz Johnson .....		178						42.79
21	Emmert & Heisley .....					79			30.55
22	Chas. Edmondston .....		40						51.31
23	W. B. Gray .....		256				78		161.80
24	Arabella Lambert .....					43			13.51
25	Capitol, North O and South Washington R. R. Co. ....								20.55
26	Swormstedt & Bradley .....								23.65
27	Thos. W. Smith .....	28							49.44
28	W. S. Fowler .....								17.33
29	C. S. Bundy, agent .....								23.92
30	Thos. J. Biggins .....								16.88
31	R. A. Phillips .....								14.14
32	E. G. Shafer & Co .....								23.84
33	A. Miller .....								19.76
34	Daniel Johnson .....								18.68
36	Sheldon Jackson .....		99						23.79
37	Sheldon Jackson .....		20						69.17
38	Dr. J. D. Morgan .....		33						7.95
39	T. F. Schneider .....								2.37
40	E. P. Jones .....		23						5.50
41	Geo. E. Emmons .....								34.04
42	Chas. B. Pearson .....					50			15.90
43	Joseph Parris .....								202.30
44	Wm. H. Shock .....		23						5.59
45	Wm. M. Shuster .....		26						6.10
46	L. C. Bailey .....		24						5.85
48	G. O. Weston .....				92				17.43
50	Wright & Stockett .....			20					7.81
51	Chas. W. King .....			26					2.31
52	Albert Gleason .....			280					25.23
53	Albert Gleason .....			80					7.75
54	R. C. Glascock .....			24					2.17
55	John W. Morris .....			22					1.74
56	Mrs. B. Bryan .....			24					2.20
57	Henry Hurt .....		23						8.22
58	Mrs. Goff .....			128					11.52
59	P. B. S. Pinchback .....			48					4.28
60	J. F. Doran .....			29					2.61
61	A. Nailor, jr. ....		30						7.29
62	Wm. H. Manogue .....			136					12.21
63	R. J. Fleming .....						16		39.05
64	C. H. Parker .....							22	19.03
	Total .....	44	1,504	823	92	172	94	22	2,258.21



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 561

The following is a report of the repairs made to cuts in improved pavements during the year, July 1, 1891, to June 30, 1892:

## Plumbers' cuts.

Character.	Number.	Square yards.	Price per square yard.	Total cost.
Sheet asphalt.....	364	961½	\$3.00	\$2,885.50
Granite.....	138	696½	1.35	939.32
Asphalt block.....	182	1,114½	1.35	1,504.58
Cobble.....	234	1,768	.45	795.60
Vitrified brick.....	22	371½	1.35	501.30
Macadam.....	22	168½	1.35	227.70
Sheet asphalt, repaired without preliminary base.....	18	.....	.....	140.08
Total.....	980	5,220½	.....	6,994.58

Cuts repaired for water, sewer, and street departments, and charged to appropriation current repairs streets, avenues, and alleys, 1892.

For whom done.	No. cuts repaired.	Base laid.	Paved.	Cost.
		Sq. yards.	Sq. yards.	
Water department.....	174	615	778	\$1,397.37
Sewer department.....	110	691½	603½	1,537.30
Street department.....	31	138½	542½	405.96
Total.....	315	1,444½	1,924	3,340.63

## Cuts repaired and charged to various deposits.

For whom done.	Base laid.	Paved.	Cost.
	Sq. yards.	Sq. yards.	
Washington Gaslight Co.....	2,005	2,256	\$4,790.26
Chesapeake and Potomac Telephone Co.....	7,202	3,545	17,687.72
United States Electric Light Co.....	97	252½	3,285.26
Washington and Georgetown Railroad Co.....	75	.....	160.18
Total.....	9,379	6,043½	25,923.42

Cuts repaired and charged to appropriations other than current repairs to streets, avenues, and alleys, 1892.

Character of work.	Base laid.	Paved.	Cost.
	Sq. yards.	Sq. yards.	
Sewer department.....	1,673	536½	\$2,141.43
Water department.....	107	107	132.13

There was done, under supervision of this office, setting of curb and repairing of roadway at the intersection of Connecticut and Florida avenues, chargeable to appropriation for improvement of streets and avenues, at a total cost of \$431.14.

The work of repairs to concrete pavement is shown by the following table:

## 562 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*Repairs to concrete pavements, 1892.*

[Contract No. 947, dated August 11, 1888,]

Locality.	Year laid.	Cubic yards.	Cost per cubic yard.	Square yards.	Cost per square yard.	Contract work.	Total cost.
S street NW., from Twelfth to Fourteenth*	1875	.....	.....	3,919.92	1.02	\$5,368.11	\$5,368.11
Fourth street NW., from Indiana avenue to G street*	1872	.....	.....	3,735.89	1.02	4,650.24	4,650.24
L street NW., from Fourteenth to Sixteenth*	1877	.....	.....	3,750.87	1.02	5,158.33	5,158.33
Massachusetts avenue NW., from New Jersey avenue to Third street*	1882	.....	.....	3,360.26	1.02	5,512.60	5,512.60
Q street NW., from Fourteenth to Fifteenth*	1874	.....	.....	2,338.47	1.02	2,736.06	2,736.06
E street NW., from Fifth to Eleventh*	1878	.....	.....	7,372.07	1.02	12,864.32	12,864.32
F street NW., from First to Second*	1879	.....	.....	1,768.08	1.02	2,959.93	2,959.93
Fifteenth street NW., from Rhode Island avenue to Q*	1875	.....	.....	3,891.65	1.02	4,896.37	4,896.37
F street NW., from Seventh to Ninth	1877	.....	.....	1,893.76	1.02	3,089.49	3,089.49
B street SE., from New Jersey avenue to Second	1873	.....	.....	3,765.60	1.02	7,038.18	7,038.18
Fourteenth street NW., from New York avenue to Thomas Circle*	1874	.....	.....	12,648.42	1.02	20,177.00	20,177.00
Eleventh street NW., from Pennsylvania avenue to E*	1878	.....	.....	2,680.28	1.02	4,341.92	4,341.92
New Jersey avenue NW., at C*	1877	.....	.....	458.57	1.02	702.92	702.92
Various†	.....	2,711.0137	\$17.00	.....	.....	62,460.34	62,460.34
O street NW., from Seventh to Eighth‡	.....	.....	.....	1,262.00	3.12 <sub>16</sub>	3,933.29	3,933.29
.....	.....	.....	.....	52,845.84	.....	145,889.10	145,889.10
Inspection .....	.....	.....	.....	.....	.....	.....	3,899.00
Repairs to tools, etc.....	.....	.....	.....	.....	.....	.....	211.90
Total.....	.....	.....	.....	52,845.84	.....	145,889.10	150,000.00

\* Resurfaced.

† Minor repairs; includes base, binder, cutting out, etc.

‡ Granite block; work done by day's labor.

Respectfully submitted.

H. N. Moss,  
*Superintendent of Streets.*The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

## REPORT OF SUPERINTENDENT OF COUNTY ROADS.

AUGUST 1, 1892.

SIR: I submit herewith report of expenditures made in the county, under my supervision, in improving various roads and suburban streets during fiscal year 1892, and also estimates for fiscal year 1893.

## EXPENDITURES.

*Repairing county roads and suburban streets, fiscal year 1891-'92.*

Name of road.	Expended.	Name of road.	Expended.
CENTRAL SECTION.		CENTRAL SECTION—continued.	
Argyle Mill road .....	\$107.55	Farragut street .....	\$9.00
Bates .....	55.50	Meridian street (Mount Pleasant) .....	599.95
Bennings .....	357.94	Linden street (Le Droit Park) .....	198.50
Blair .....	51.75	Alley between R and S and First and	
Bladensburg .....	5,570.59	Second streets NW .....	97.19
Brentwood .....	4,600.30	Alley in Block 15 (Le Droit Park) .....	51.75
Brown street (Mount Pleasant) .....	877.81	Miscellaneous labor .....	1,838.79
Bunker Hill road .....	350.21	Material for general use .....	250.47
Central avenue, No. 1 .....	35.56	Blacksmithing .....	234.04
Cedar lane .....	22.68		
Columbia road .....	1,795.54	Total .....	34,240.61
Fifteenth street extended NW .....	150.91		
Fourteenth street extended NW .....	184.24	EASTERN SECTION.	
Harewood road .....	612.25	Anacostia road .....	986.45
Howard street .....	11.12	Adams street .....	4.25
Keating avenue .....	260.67	Bennings road .....	4,189.33
Lincoln avenue .....	542.05	Bowen .....	250.75
Linnaen Hill road .....	544.74	Central avenue .....	83.00
Military .....	138.37	Giesboro road .....	463.74
Mount Olivet .....	26.13	Good Hope .....	652.99
Nineteenth street extended NW .....	9.75	Hamilton .....	89.71
Park street (Mount Pleasant) .....	40.23	Harrison street (Anacostia) .....	281.58
Princeton street .....	412.38	Jackson street (Anacostia) .....	73.42
Queen Chapel road .....	23.25	Jefferson street (Anacostia) .....	63.72
Riggs .....	393.10	Livingston road .....	634.20
Rock Creek Church .....	1,937.94	Monroe street (Anacostia) .....	69.68
Sandy Spring .....	47.50	Morris road .....	333.12
Sheridan avenue .....	9.50	Naylor .....	94.13
Shepherd road .....	22.56	Nichols avenue .....	707.37
Sixteenth street extended NW .....	43.00	Pierce street (Anacostia) .....	31.50
Sixth street extended NW .....	81.42	Polk Street (Anacostia) .....	512.49
Spring street .....	117.37	Race Course road .....	91.05
Sumner street .....	3.87	McLain .....	8.50
Thirteenth street extended NW .....	34.75	Sheridan avenue .....	99.00
Trumbull street .....	2.00	Sheriff road .....	54.50
Whitney avenue .....	211.50	Staunton avenue .....	121.12
Woodley lane .....	820.25	Suit road .....	59.00
Klinge road .....	14.50	Sumner street .....	34.50
Howard avenue (Mount Pleasant) .....	99.87	T street .....	14.75
Sherman avenue (Mount Pleasant) .....	94.50	Valley street (Anacostia) .....	86.12
Center street (Mount Pleasant) .....	150.00	Washington street (Anacostia) .....	121.16
Kenesaw avenue .....	48.84	Wheeler road .....	36.75
Ontario avenue (Lanier Heights) .....	42.25	Bowen street .....	27.25
North Capitol street .....	4.88	Howard street .....	198.50
California avenue .....	13.85	Johnson street .....	40.23
Fourth street extended NE .....	14.00	Pleasant street .....	84.74
R street extended .....	145.25	Maple avenue .....	85.50
First street extended NW .....	1,992.80	Navy place .....	32.75
Massachusetts avenue extended NW .....	254.92	Bridge street .....	18.47
Roanoke street .....	46.15	Pomeroy street .....	27.25
Quincy street .....	12.25	Fort Stanton road .....	30.25
Twentieth street extended NW .....	43.06	Elvan avenue .....	55.62
Twelfth street extended NE .....	100.95	Taylor street .....	13.00
Gales street .....	1.50	Pennsylvania avenue extended SE .....	978.42
Elm street (Le Droit Park) .....	527.13	Spring street .....	5.00
Eighteenth street extended NW .....	21.05	Minnesota avenue .....	49.93
Florida avenue .....	63.81	Nineteenth street extended SE .....	40.25
Randolph street .....	94.75	Douglass avenue .....	198.50
S street extended .....	70.40	Miscellaneous labor .....	904.65
Le Droit avenue (Le Droit Park) .....	12.12	Material for general use .....	32.69
Quarry road .....	388.21	Blacksmithing .....	82.30
Harewood avenue (Le Droit Park) .....	41.25		
Seaton street .....	521.24	Total .....	13,144.18
T street extended .....	29.50		
Kansas avenue (Lanier Heights) .....	65.62	WESTERN SECTION.	
Spruce street (Le Droit Park) .....	5.00	Argyle Mill road .....	4.37
M street extended NE .....	50.77	Broad Branch .....	573.88
Central avenue (Ivy City) .....	11.25	Canal .....	125.25
Brightwood avenue .....	3,430.59	Chain Bridge .....	66.74
Kendall street (Ivy City) .....	11.25	Chappell .....	277.57
Lansing street (Brookland) .....	34.44	Daniels .....	50.75
Hartford street (Brookland) .....	51.23	Falls .....	37.49
Frankfort street (Brookland) .....	11.69	Foxhall .....	253.75
O street extended .....	5.00	Grant .....	981.34
Vermillion street (Takoma Park) .....	520.57		
Capitol street (Ivy City) .....	1,408.20		



## 564 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## EXPENDITURES—Continued.

*Repairing county roads and suburban streets, fiscal year 1891-'92—Continued.*

Name of road.	Expended.	Name of road.	Expended.
WESTERN SECTION—continued.		WESTERN SECTION—continued.	
Klinge.....	\$817.53	Milwaukee street (Oak View subdivision).....	\$12.25
Loughboro.....	70.20	Thirty-fifth street (Oak View subdivision).....	10.50
Military.....	140.50	Thirty-sixth street (Oak View subdivision).....	22.75
Murdock Mill.....	48.74	Woodley Lane road.....	1,010.17
New Cut.....	1,813.95	South approach (causeway) to Chain Bridge.....	42.12
Pierce Mill.....	272.81	Miscellaneous labor.....	1,426.81
Red lane.....	69.70	Material for general use.....	87.43
Ridge road.....	209.13	Blacksmithing.....	125.35
River.....	720.98	Total.....	12,610.16
Rock Creek Ford.....	761.36		
Tunlaw.....	42.75		
Thirty-seventh street extended.....	43.56		
Tennallytown road.....	2,418.43		
Howard street (Reno).....	49.25		
Pierpont Place (Oak View subdivision).....	22.75		

## RECAPITULATION.

Central section.....	\$34,240.61
Eastern section.....	13,144.18
Western section.....	12,610.16
Total.....	59,994.95
Amount of appropriation.....	60,000.00
Total expenditure.....	59,994.95
Balance.....	5.05

*Construction and repair of bridges, 1892.*

Bridges.	Expended.	Bridges.	Expended.
EASTERN SECTION.		WESTERN SECTION—continued.	
Livingston road.....	\$62.23	River road.....	\$40.75
Harrison street.....	35.75	Grant road.....	38.90
Bennings road.....	324.62	Chain bridge.....	2,431.01
Anacostia road, over Watts Branch.....	60.15	Material for general use.....	3.29
Bennings bridge.....	62.10	Total.....	3,720.96
Miscellaneous labor.....	15.75		
Total.....	560.60	CENTRAL SECTION.	
WESTERN SECTION.		Bunker Hill road.....	47.00
Murdock Mill road.....	354.18	Bladensburg road.....	256.57
Chappell road.....	434.87	First street extended, NW.....	8.00
Canal road.....	211.06	Miscellaneous labor.....	1.87
Daniels road.....	174.15	Material for general use.....	2.54
Military road.....	32.75	Total.....	315.98

## RECAPITULATION.

Eastern section.....	\$560.60
Western section.....	3,720.90
Central section.....	315.96
Total.....	4,597.54

*Appropriation for ordinary care of bridges, 1892.*

Salary of keepers, fuel, etc. (July 1, 1891, to February 29, 1892).....	\$901.01
---	----------

*Appropriations for permit work, 1892—Laying plank walks under compulsory system in Brookland.*

Street.	Expended.	Street.	Expended.
Hartford street, between Queen and Burns .....	\$233. 71	Queen street, between Bunker Hill road and Hartford .....	\$143. 80
Frankfort street, between Argyle and Duncan .....	220. 74	Bunker Hill road, between Wallace and Queen .....	41. 09
Dover street, between Burns and Duncan .....	109. 38	Total .....	1, 278. 14
Concord street, between Burns and Duncan .....	110. 10	Lanier avenue, Lanier Heights (voluntary) .....	47. 43
Burns street, between Hartford and Providence .....	104. 34	Langdon Park, subdivision (voluntary) .....	565. 11
Lansing street, between Argyle and Queen .....	314. 98	Total expenditure .....	1, 890. 68

*Appropriation for grading streets, 1892.*

T street, between First and Lincoln avenue NE ..... \$577. 00

## SUMMARY.

Appropriation, current repairs, county roads, etc. ....	\$59, 994. 95
Appropriation, construction and repair of bridges .....	4, 597. 54
Appropriation, ordinary care of bridges .....	901. 01
Appropriation, permit work .....	1, 890. 78
Appropriation, grading streets, etc. ....	577. 00
Total .....	67, 961. 28

## REPAIRING COUNTY ROADS AND SUBURBAN STREETS.

The improvements of most importance made under this appropriation were, the widening, macadamizing, graveling, and paving of gutters on the Bladensburg road from Florida avenue to Mount Olivet Cemetery; the grading and macadamizing of the Brentwood road from Florida avenue to R street; the grading and macadamizing of Brown street, Mount Pleasant; the resurfacing with macadam of a portion of Columbia road and the laying of a 5-foot plank walk along said road from Mintwood Place to Fifteenth street; the graveling of Harewood road, between Bunker Hill and Rock Creek Church road; the graveling of Lincoln avenue; grading and graveling Linnaen Hill road; graveling the Rock Creek Church road; grading Woodley Lane road, between Nineteenth street and Rock Creek and macadamizing a portion between Rock Creek and Tennallytown road; grading First street extended NW., south of Soldiers' Home; macadamizing, graveling, and laying gutters on Elm street, Le Droit Park, east of Linden street; grading and macadamizing Seaton street, east of First street NW.; graveling and resurfacing with macadam the northern portion of Brightwood avenue; grading and laying plank walk on Vermillion street, Takoma; grading and macadamizing Capitol street, Ivy city; grading and macadamizing Meridian street in Mount Pleasant; widening, macadamizing, and graveling of the Bennings road east of the Eastern Branch, and the laying of plank walk on a portion of the road between Florida avenue and the Eastern Branch; graveling the Anacostia road; graveling and repairing with stone on the Giesboro road; graveling and repairing Good Hope road; graveling Livingston road; graveling and repairing Nichols avenue; grading, graveling, and paving gutters on Polk street (Anacostia), between Jefferson and Valley streets; widening and graveling Pennsylvania avenue extended from Eastern Branch to Minnesota avenue; macadamizing and graveling on Broad Branch road; macadamizing on Grant road; graveling and laying gutters on New Cut road; macadamizing a portion of River road between Tennallytown and the District line; graveling and repairing Rock Creek Ford road; resurfacing with macadam and gravel on the Tennallytown road, between Massachusetts avenue extended and Tennallytown.

On the other roads and streets the work done was cleaning gutters and making such repairs as from time to time were necessary, caused by wear and tear and washing caused by rains, etc. The roads generally are not at present in as good condition as generally, owing to the lack of funds for the current repairs during June and a portion of May. In a number of cases the gutters filled up, causing the roadways to be badly washed in a number of places. The particles of stone which are constantly loosened by travel from the macadam, and require frequently to be

## 566 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

raked off, have accumulated on many of the roads. A large force of men, however, is now engaged in making the necessary repairs to the various roads, as rapidly as possible.

### CONSTRUCTION AND REPAIR OF BRIDGES, 1892.

The principal work on bridges was reflooring and putting in new stringers on Chain Bridge; building bridge on Murdock Mill road; building bridge on Chappell road; rebuilding bridge on Daniels road; repairing large stone culvert on Canal road, near New Cut road; extending stone culvert on Bladensburg road, near Mount Olivet road; building stone culvert on Bennings road, near Central avenue. Other work done was such general repairs as were required on the various bridges from time to time. On March 1, 1892, by order of the Commissioners, all bridges in the county were turned over to Mr. Hunt, Superintendent of Bridges.

#### *Estimates for fiscal year 1893-'94.*

Harrison and Bridge streets, Anacostia, paving.....	\$13,000
Michigan avenue, for grading .....	5,000
First street extended, NW., grade for sidewalks .....	2,000
Brightwood avenue, paving with granite block.....	10,000
Yale, Columbia, Harvard, and Kenyon, between Thirteenth and Fourteenth streets, grading.....	5,000
New Cut road, west of Foundry branch, grading .....	2,500
T street, between Le Droit Park and Eckington, grading.....	2,500
North Capitol street, grading .....	10,000
Streets of Brookland and University Heights, grading.....	5,000
Permit fund for roadways, one-half to be assessed on abutting land (to pave suburban streets, on application of a majority of the property owners) .....	50,000
For current repairs on county roads and suburban streets.....	75,000
<b>Total .....</b>	<b>180,000</b>

Respectfully,

GEORGE N. BEALE,  
*Superintendent of County Roads.*

TO ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fieberger.

### REPORT OF ENGINEER OF BRIDGES.

WASHINGTON, D. C., July 1, 1892.

SIR: I have the honor to submit the following annual report for the year ending June 30, 1892.

The division of bridges was organized, and I was assigned to its charge as engineer of bridges, February 29, 1892. Prior to that date the care of existing bridges and the construction of new ones under the appropriations for ordinary care of bridges and construction and repair of bridges had been carried on under the superintendent of roads and superintendent of streets, each of whom expended the quota assigned to the structures situated in the territory under his charge, while the specific appropriation for the construction of Woodley Lane bridge was assigned to the office of the computing engineer and the one for the construction of Bennings Road bridge to an assistant engineer created under that appropriation; to which office I was assigned under date of August 31, 1891, and which I held at the date of my appointment as engineer of bridges.

This report, therefore, can not possess completeness as an annual one, the operations, other than those connected with Bennings Road bridge, having been conducted in part by other divisions. I include in my statement of disbursements the amounts expended under the superintendent of roads and the superintendent of streets.

#### BENNINGS ROAD BRIDGE.

By act of Congress approved March 3, 1891, an appropriation of \$60,000 was made for the construction of an iron bridge, with necessary approaches, across the Eastern Branch of the Potomac River, on the Bennings road. The contract for the work



was awarded to A. D. Neeld at his bid of \$53,550, the subcontractor for the iron superstructure being the Keystone Bridge Company of Pittsburg, Pa. The contract has been executed and the resulting structure is a plate-girder trestle bridge, having pile and grillage foundations for the posts of the bents, masonry pedestals under the posts from low-tide level to a foot above high tide, and a steel buckle-plate floor supporting an asphalt roadway and neuchatel sidewalks. The roadway width is 24 feet, the two sidewalks 5 feet each, and the length between abutments is 500 feet. The grade of the roadway is 15 feet above low tide. The new structure was opened to public travel May 26. Since that date necessary work on the approaches has been executed and is now in progress. The unexpended balance of the appropriation July 1, 1892, is \$639.38.

*Statement of appropriation.*

Amount appropriated .....	\$60,000.00
Credit arising on 133 barrels cement purchased at \$2.74 and charged to contractor at \$3.25 per barrel.....	67.83
	<hr/> 60,067.83
Expended:	
Pay rolls .....	\$2,530.52
Supplies .....	179.41
Contract work .....	56,718.52
	<hr/> 59,428.45
Unexpended balance July 1, 1892.....	<hr/> 639.38

*List of inspectors, etc.*

Name.	Designation.	Rate.	Time. (Days.)	Amount.
C. B. Hunt .....	Assistant engineer .....	*\$150.00	34	\$194.44
C. B. Hunt .....	do .....	*175.00	201	1,348.14
J. R. King .....	Inspector .....	† 3.00	102	306.00
Louis Mohun .....	Axman .....	† 2.00	1	2.00
James Renfro .....	Laborer .....	† 1.50	5	7.50
Joseph Sembly .....	do .....	† 1.50	4	6.00
W. R. Griffin .....	Superintendent .....	*75.00	28	64.52
J. A. Colby .....	Iron inspector .....	† .70	§ 336.8	235.76
Total (about 3.6 percent. of appropriation).....				<hr/> 2,164.36

\* Per month.

† Per diem.

‡ Per ton.

§ Weight in tons.

**EXISTING BRIDGES.**

The following list gives a brief sketch of the history, dimensions and present condition of each of the public bridges under my charge, the structures being arranged in the order of the bridgenumbers authorized for use by an order of the Commissioners of the District of Columbia dated April 14, 1892.

1. Chain Bridge, over the Potomac west of Georgetown: Length, 1,352 feet; width of roadway 20 feet; no sidewalks. Present superstructure erected by Phoenix Bridge Company (Clark, Reeves & Co.) of Phoenixville, Pa., under a contract with the United States dated November 14, 1873. The structure was completed March 27, 1874. The appropriation for the work was \$100,000. The bridge consists of six spans of 172 feet each, and two spans of 160 feet each. It is in fair condition and not unequal to the duty it performs.

2. River road, west of Tennallytown: Built in 1890; 8 feet span, 50 feet wide; in fair condition; recommended to be arched.

3. Murdock Mill road, first bridge west of Tennallytown: 13 feet span, 32 feet wide; in good condition.

4. Murdock Mill road, second bridge west of Tennallytown: 13 feet span, 32 feet wide; in good condition.

5. Murdock Mill road, third bridge west of Tennallytown: 16 feet span, 30 feet wide; built in 1891; in good condition.

6. Murdock Mill road, fourth bridge west of Tennallytown: 14 feet span, 30 feet wide; built in 1891; in fair condition.

7. Aqueduct or New Free Bridge over the Potomac at Thirty-sixth street: Length, 1,361 feet; roadway, 24 feet wide; sidewalks, 6 feet each. The substructure construction was begun in 1835. By act of Congress approved July 27, 1868, the Alexandria Canal, Railroad, and Bridge Company was authorized to erect and maintain a highway bridge in connection with their aqueduct, and to collect toll. By act

approved June 21, 1886, an appropriation of \$240,000 was made to purchase the superstructure and erect a free bridge, one-half the cost being charged to the District of Columbia. Under this appropriation the present iron superstructure was erected by the Mount Vernon Bridge Company, of Mount Vernon, Ohio, under contract with the United States dated March 21, 1887. It was opened to travel March 3, 1888, and transferred to the charge of the Commissioners of the District September 15, 1888. The structure consists of a through-truss span over the Chesapeake and Ohio Canal of 164 feet span, 122 feet 9 inches of iron trestle over the north canal aqueduct abutment, and nine deck spans over the river of 114 feet each. The top of coping of the river piers is 30 feet and the grade of the roadway 55.3 feet above mean low tide.

NOTE.—Mean low tide is 2.11 feet below the District of Columbia or Coast Survey datum. Hence, elevation of tops of river piers by District of Columbia datum is 27.89.

The through trusses are 26 feet 7 inches apart on centers, 27 feet 6 inches deep, and divided into eight panels of 20 feet 6 inches each. The deck trusses are 23 feet 7 inches apart on centers, 19 feet deep, and divided into six panels of 19 feet each. There are thirteen lines of 6½ by 16 inch oak joists in the roadway and four lines of 3 by 14 inch oak joists in each sidewalk. The roadway floor is a double one of 3 inch underlying 2-inch oak plank, both laid diagonally at 45° to the bridge axis. The sidewalk plank is 3-inch oak.

The structure is strong and safe, but the wooden floor needs renewal at an early date.

After the freshet of 1889 a failure of the foundation of pier No. 1 (counting from the Virginia end) was repaired by divers, and riprap protection placed around it. The diver's examination was extended to the remaining river piers and the report of their condition is given in the Report of Operations of the Engineer Department of the District of Columbia, for the fiscal year 1888-'89, p. 28.

About the middle of May, 1892, evidence of a break in the masonry of Pier No. 4 was noted for the first time. The crack extends on both faces of the pier from the top to the water edge and across the coping. It has remained without increase since its first discovery, and no alarm is felt as to its serious moment, but it is deemed advisable to here renew the recommendation, made in the report of 1888-'89, that these piers be properly protected with riprap where the examination shows its advisability.

8. Daniels road, first bridge south of the District line: 10 feet span, 24 feet wide; built in 1891, a former structure having been washed away; in good condition, except as to the handrail.

9. Daniels road, second bridge south of the District line: 8 feet span, 32 feet wide; in good condition; recommended to be arched.

10. Rock Creek Ford road, east of Rock Creek: 14½ feet span, 16 feet wide; reconstructed in 1892; in good condition. This bridge is within the limits of the new Rock Creek Park.

11. Military road, second bridge east of Rock Creek: 10 feet span, 32 feet wide; southeast abutment corner secured; otherwise in good condition.

12. Military road, first bridge east of Rock Creek: 9 feet span, 16 feet wide; rebuilt in 1889; joists and handrail need renewal or else to be arched. This bridge is within the limits of the new Rock Creek Park.

13. Military road over Rock Creek: 53 feet span, 15 feet wide; Howe truss with wooden angle blocks; built in 1878; reconstructed in 1889; strengthened in 1892; a county bridge of about 80 pounds capacity per square foot; in fair condition. This structure is within the limits of the new Rock Creek Park.

14. Argyle Mill road over Rock Creek: 102 feet long, 14 feet wide; two spans of Howe truss; built in 1890, a former structure having been washed away; in good condition. This bridge is within the limits of the new Rock Creek Park.

15. Chappell road, near Broad Branch road: 20 feet span, 24 feet wide; built in 1891 to replace an old log-abutment structure; in good condition.

16. Broad Branch road, south of Chappell road: 18 feet span, 18 feet wide; in fair condition except as to handrail.

17. Military road over Broad Branch: 20 feet span, 24 feet wide; built in 1891; very light capacity but in fair condition; good for 35 pounds per square foot.

18. Broad Branch road, near Argyle Mill road: 16 feet span, 34 feet wide; in fair condition.

19. Argyle Mill road over Broad Branch: 48 feet long, 16 feet wide; Howe truss with wooden blocks; built in 1888; extra truss rods added in 1892; an 80-pound county bridge; in fair condition. This structure is within the limits of the new Rock Creek Park.

20. Pierce Mill road, over Rock Creek: 144 feet long, 27 feet wide; two spans, "A" truss, wood; built in 1872-'73; joists bad and floor needs some repairs; truss timbers decayed in places; capacity about 60 pounds per square foot. This bridge is within the limits of the new Rock Creek Park.



21. Shepherd road over Piney Branch: 16 feet span, 22 feet wide; rebuilt in 1889; in fair condition.

22. Spring street, near Rock Creek Church road: 5 feet span, 18 feet wide; built in 1890; in fair condition; recommended to be arched.

23. Spring street, east of Fourteenth street: 8 feet span, 14 feet wide; rebuilt in 1891; in fair condition; recommended to be arched.

24. Fourteenth street road over Piney Branch: Howe truss; 30 feet span, 20 feet wide; built in 1879; rebuilt in 1889; capacity 80 pounds per square foot; in fair condition.

25. Linnaen Hill road over Piney Branch: 20 feet span, 18 feet wide; rebuilt in 1889; superstructure satisfactory but the abutments poor. This bridge should be arched and especial care used in constructing the foundations of the side walls. It is included within the limits of the new Rock Creek Park.

26. Klinge road over Rock Creek: 87½ feet span, 22 feet wide; iron truss, Warren type; built in 1886-'87 by Edgemoor Bridge Company; capacity about 75 pounds per square foot; in good condition. This bridge is within the limits of the new Rock Creek Park.

27. Connecticut avenue extended, over Klinge road: 400 feet long; roadway, 40 feet wide; sidewalks, 5 feet each; built in 1891 by the Youngstown Bridge Company, of Youngstown, Ohio, for the Rock Creek Railway Company; transferred to the District Commissioners July 20, 1891; consists of four iron trusses, three of 65 feet each (Pratt) and one of 115 feet span (Warren), supported by two masonry abutments and three iron trestle towers, the highest of which is 50 feet. The specifications under which the structure was built are a modification of Cooper's—the changes being made in the unit strains permitted. In a review of the plans I note a deficiency of 20 per cent in the inclined longitudinal rods leading from the foot of the posts for the top longitudinal struts, to the top of bents Nos. 5 and 6. This gives a unit stress of 12,500 pounds instead of 10,000 on these members; not an unreasonable duty. Although struts are provided at the feet of the tower posts, they are not of sufficient capacity nor are the bearings the of posts on the masonry designed for proper movements under temperature changes. The structure needs adjustment.

28. Klinge road, second bridge west of Rock Creek: 8 feet span, 40 feet wide; built in 1886; in fair condition; recommended to be arched.

29. Klinge road, first bridge west of Rock Creek: 8 feet span, 30 feet wide; built in 1886; in fair condition; recommended to be arched.

30. Connecticut avenue extended over Rock Creek: 750 feet long; roadway, 40 feet wide; sidewalks, 5 feet wide each; built in 1891 by the Edgemoor Bridge Company, of Wilmington, Del., for the Rock Creek Railway Company; transferred to the District Commissioners July 20, 1891. Consists of six spans of iron Pratt trusses supported by two masonry abutments and five iron trestle towers. The spans are 75 feet, 90 feet, and 135 feet long (two of each); and the 135-foot spans have curved bottom chords. The trestle towers range from 44 feet to 107 feet in height. The same specifications were used in its construction as in the case of bridge No. 27. In the towers the transverse struts are in most cases deficient under the specifications, in some instances to the extent of 25 per cent, and the lateral rods are in some cases short in section. To offset this, the assumption of wind load is excessively severe, and the simultaneous maximum of wind and live load is a very remote contingency, amply provided for by the safety factor. Structurally considered, I believe the towers should have been provided with a full system of struts at the level of the masonry, properly designed to control temperature changes. The posts of the 135-foot spans are to be adjusted by the Edgemoor Bridge Company. The lateral systems, floor beams, and floor are of good capacity; the details good; the erection fair. The pins have not been figured in detail; they are considered of sufficient strength. Both this bridge and No. 27 should receive frequent and careful inspection and adjustment.

31. Woodley Lane over Rock Creek: 454 feet long; roadway, 24 feet wide; sidewalks, 4 feet wide each; built in 1888-'89 by the Groton Bridge and Manufacturing Company, of Groton, N. Y., under contract with the District Commissioners; cost \$35,000; consists of four spans of iron Pratt trusses, 112 feet long each, supported by two masonry abutments and three iron trestle towers. As to substructure, the abutments are poor and the trestle towers deficient under the specifications used in construction (Cooper's) by 20 per cent in the posts. Under an assumed wind pressure of 40 pounds per square foot the deficiency is 6 per cent, and as the simultaneous maximum of live and wind loads are the conditions assumed the shortage is not of practical importance, although worthy of record. The iron superstructure has a capacity of 100 pounds to the square foot, is in good condition excepting some needed adjustments, and was painted in 1892. The wooden floor is in poor condition and its renewal is contemplated.

32. Massachusetts avenue over Rock Creek: The present structure is not a public one.



33. Red or Lovers Lane, north of Road street: 14 feet span, 24 feet wide; in fair condition.

34. P street over Rock Creek: Consists of two iron deck trusses, 112 feet span, 24 feet apart on centers, divided into 9 panels; roadway width, 26 feet 9 inches; sidewalks, 4 feet 7 inches each. The structure is on a slight skew. Built during 1870-'71 by the corporations of Washington and Georgetown, each paying one-half (acts of September 7, 1869, and October 20, 1870). The bridge is in course of temporary repairs to provide for the additional loads it must carry by reason of the contemplated change of motive power on the part of the Metropolitan Street Railway Company, whose new battery car is estimated to weigh 21,000 pounds when loaded with passengers. Its general condition is unsatisfactory and its capacity and stability limited to slow travel.

35. M street, over Rock Creek: Consists of five deck trusses of iron; 126 feet 8 inches span; roadway width, 42 feet 6 inches; sidewalks, 8 feet wide each. The three central trusses originally composed the structure and were built in 1872 by the Kellogg Bridge Company. The outside trusses were added to strengthen the bridge in 1880 by the Pittsburg Bridge Company under contract with the District Commissioners. This structure was fully reported on in detail under date of January 25, 1892. Its condition has not been changed since then and is such that no statement of its safety can be made. The pins of the central trusses have already failed by bending. The floor is in fair condition.

36. K street, over Rock Creek: Consists of three bowstring trusses, 114 feet 9 inches span, 16 feet 6 inches on centers, with two sidewalks 6 feet wide each. Construction authorized by act of corporation of Washington of May 23, 1867. Built by J. H. Cofrode & Co. in 1869. It has developed signs of instability, though not of absolute weakness, which have been remedied as far as possible; but its condition is one to be tolerated only because no means are at hand to rebuild it.

37. Central avenue east of Lincoln avenue: 19 feet span, 21 feet wide; built in 1890; in fair condition.

38. K street, over James Creek Canal. New structure now under construction. Will be plate-grider through bridge, 64 feet long, 24 feet wide in clear. Building under contract with Youngstown Bridge Company.

39. M street, over James Creek Canal. Pony trusses, Pratt type; 70 feet span; 29 feet on centers; sidewalks 5 feet wide each. Built in 1883 by King Iron Bridge Company, of Cleveland, Ohio, under contract with the District of Columbia. The cost was \$4,656.70 and was paid for from a special appropriation. The iron superstructure is in safe and satisfactory condition; the substructure the same; floor joists good, but wooden floor plank needs renewal.

40. N street, over James Creek Canal. Wooden Howe truss; 66 feet span and 46 feet of wooden trestle approaches; roadway, 19 feet wide; sidewalks, 4 feet 2 inches each. The present structure was built in 1876 by J. J. Chipman, under contract with the District Commissioners. It displaced an old draw-bridge. It has been extensively repaired since that date. Its present condition is safe, but it is intended to replace the wooden trusses with metal as soon as considerable repairs become necessary.

41. Riggs road, first bridge east of Metropolitan Branch, Baltimore and Ohio Railroad: Rebuilt in 1889; 8 feet span, 28 feet wide; in fair condition; recommended to be arched.

42. Riggs road, second bridge east of Metropolitan Branch, Baltimore and Ohio Railroad: 4 feet 6 inches span; 24 feet wide; rebuilt in 1888; in fair condition; recommended to be arched.

43. Queens Chapel road, south of Bunker Hill road: 4 feet span; 20 feet wide; rebuilt in 1891; in fair condition; recommended to be arched.

44. Bunker Hill road, east of Queens Chapel road: 10 feet span; 21 feet wide; built in 1891; in good condition.

45. Sargent road, near Bunker Hill road: 10 feet span; 24 feet wide; built prior to 1886; in fair condition.

46. Queens Chapel road, north of Bunker Hill road: 8 feet span; 22 feet wide; in fair condition; recommended to be arched.

47. Queens Chapel road, near District line: 5 feet 6 inches span; 24 feet wide; in fair condition; recommended to be arched.

48. Brentwood Road, near District line: 6 feet span, 18 feet wide; built in 1889; in poor condition; recommended to be arched.

49. Anacostia or River road over Watts Branch: 50 feet span, 18 feet wide; rebuilt in 1890; wooden Howe truss, about 80 pounds capacity per square foot; in fair condition.

50. Bennings Road, near Central avenue: Has just been replaced by a 6-foot arch culvert.

51. Anacostia or River road, near Bennings road: 18 feet span; 20 feet wide; built in 1886; in fair condition.

52. Bennings road, over Anacostia River: 500 feet span; roadway 24 feet wide; sidewalks 5 feet wide each; built 1891-92; consists of 200 feet iron trestle, 25 feet bents; 100 feet, 35 feet 4 inches bents; and 200 feet, 25 feet bents. Capacity, 100 pounds per square foot; in good condition.

53. Anacostia or River road, first bridge east of Pennsylvania avenue: 14 feet span; 24 feet wide; built in 1885; in fair condition.

54. Pennsylvania avenue bridge, over the Anacostia River: Length, 1,590 feet; roadway, 24 feet wide; sidewalks, 4 feet wide each. The present structure was built by the United States under authority of an act of Congress approved February 23, 1887, by which an appropriation of \$110,000 was made, one-half of which was charged against the revenues of the District of Columbia. The contract was made with the Groton Bridge and Manufacturing Company, of Groton, N. Y. Under act approved May 14, 1888 an additional appropriation of \$60,000 was made to enable the structure to be conformed to the new location of the tracks of the Baltimore and Potomac Railroad Company, thus making the total cost of the work \$170,000. The structure consists of two through spans of 151 feet each, one deck span of 186 feet, eight deck spans of 112 feet each, one deck span of 120 feet, and two panels of iron trestle of 18 feet span each, all measured on the center line. The river piers are on a skew. The masonry is sandstone, resting on pile and grillage foundations. The roadway grade is 35 feet above low tide. The bridge was opened to public travel March 20, 1890, and transferred to the charge of the District of Columbia July 28, 1890. Its capacity is 100 pounds per square foot. The iron Pratt trusses are in good condition, except that they need painting. The floor system is in good condition.

During the fall of 1891 the construction of the new embankment of the Baltimore and Potomac Railroad caused a displacement of the pier at the south end of the second through span towards the river channel. On September 16 the Engineer Commissioner called upon the railroad company for a bond of \$20,000 to protect the District's interests in case of damage to the structure, and such bond was given. After further correspondence a deposit of \$50 was made by the railroad company October 31, 1891, to cover the cost of repairs necessitated by the pier's movement. A portion of these have been made from time to time and a balance of \$29.50 remains. The movement of the pier has not yet entirely ceased.

55. Navy Yard bridge, over the Anacostia River: Length, 1,260 feet; roadway, 20 feet wide; sidewalks, 5 feet wide each; consists of twelve through spans of 100 feet span each and one draw span, on the Bascule principle, 36 feet span. The present structure was built by the United States under an appropriation of \$146,000 by act of Congress approved June 22, 1874. The contract was executed by Clark, Reeves & Co., of Phoenixville, Pa. The structure was opened to public travel June 17, 1875. Its condition is as satisfactory as its nature will permit, but it is safe only under slow travel, and the substructure is poor.

56. T street, near Sheridan avenue: 10 feet span, 16 feet wide; built in 1891; abutments scoured along their faces; otherwise in fair condition.

57. Sheridan avenue, first bridge east of Nichols avenue: 5 feet span, 20 feet wide; built prior to 1878; in fair condition; recommended to be arched.

58. Stanton avenue, south of Sheridan avenue: 12 feet span, 18 feet wide; in fair condition.

59. Douglass avenue, at Stanton avenue: 6 feet span, 20 feet wide; has no abutments; in poor condition; recommended to be arched.

60. Sheridan avenue, second bridge east of Nichols avenue; has just been converted into a double pipe culvert.

61. Wheeler road, over Oxen Run: 20 feet span, 23 feet wide; rebuilt in 1889; in good condition.

62. Livingston road, over Oxen Run: 31 feet span, 22 feet wide; reconstructed with steel girders in 1892; in good condition.

63. Giesboro road, near Livingston road: 7 feet span, 17 feet wide; wood abutments; in poor condition; recommended to be arched.

64. Livingston road, near District line: 15 feet 6 inches span, 17 feet wide; built in 1887; in fair condition.

65. Naylor road, near District line: 8 feet span, 24 feet wide; built prior to 1878; in fair condition; recommended to be arched.

66. Lovers Lane, second bridge from Road street. Status as a public bridge not fully established; in poor condition.

67. Monastery road, south of Queens Chapel road; 20 feet span, 12 feet wide; no abutments; built in 1892; in fair condition.

68. Central avenue, east of Metropolitan branch of Baltimore and Ohio Railroad; 12 feet span, 12 feet wide; superstructure rebuilt in 1892; in fair condition.

In addition to these structures there are about 100 culverts of various sizes and lengths whose care is charged to the appropriation for construction and repair of bridges. They are generally in good condition.



33. Red or Lovers Lane, north of Road street: 14 feet span, 24 feet wide; in fair condition.

34. P street over Rock Creek: Consists of two iron deck trusses, 112 feet span, 24 feet apart on centers, divided into 9 panels; roadway width, 26 feet 9 inches; sidewalks, 4 feet 7 inches each. The structure is on a slight skew. Built during 1870-'71 by the corporations of Washington and Georgetown, each paying one-half (acts of September 7, 1869, and October 20, 1870). The bridge is in course of temporary repairs to provide for the additional loads it must carry by reason of the contemplated change of motive power on the part of the Metropolitan Street Railway Company, whose new battery car is estimated to weigh 21,000 pounds when loaded with passengers. Its general condition is unsatisfactory and its capacity and stability limited to slow travel.

35. M street, over Rock Creek: Consists of five deck trusses of iron; 126 feet 8 inches span; roadway width, 42 feet 6 inches; sidewalks, 8 feet wide each. The three central trusses originally composed the structure and were built in 1872 by the Kellogg Bridge Company. The outside trusses were added to strengthen the bridge in 1880 by the Pittsburg Bridge Company under contract with the District Commissioners. This structure was fully reported on in detail under date of January 25, 1892. Its condition has not been changed since then and is such that no statement of its safety can be made. The pins of the central trusses have already failed by bending. The floor is in fair condition.

36. K street, over Rock Creek: Consists of three bowstring trusses, 114 feet 9 inches span, 16 feet 6 inches on centers, with two sidewalks 6 feet wide each. Construction authorized by act of corporation of Washington of May 23, 1867. Built by J. H. Cofrode & Co. in 1869. It has developed signs of instability, though not of absolute weakness, which have been remedied as far as possible; but its condition is one to be tolerated only because no means are at hand to rebuild it.

37. Central avenue east of Lincoln avenue: 19 feet span, 21 feet wide; built in 1890; in fair condition.

38. K street, over James Creek Canal. New structure now under construction. Will be plate-grider through bridge, 64 feet long, 24 feet wide in clear. Building under contract with Youngstown Bridge Company.

39. M street, over James Creek Canal. Pony trusses, Pratt type; 70 feet span; 29 feet on centers; sidewalks 5 feet wide each. Built in 1883 by King Iron Bridge Company, of Cleveland, Ohio, under contract with the District of Columbia. The cost was \$4,656.70 and was paid for from a special appropriation. The iron superstructure is in safe and satisfactory condition; the substructure the same; floor joists good, but wooden floor plank needs renewal.

40. N street, over James Creek Canal. Wooden Howe truss; 66 feet span and 46 feet of wooden trestle approaches; roadway, 19 feet wide; sidewalks, 4 feet 2 inches each. The present structure was built in 1876 by J. J. Chipman, under contract with the District Commissioners. It displaced an old draw-bridge. It has been extensively repaired since that date. Its present condition is safe, but it is intended to replace the wooden trusses with metal as soon as considerable repairs become necessary.

41. Riggs road, first bridge east of Metropolitan Branch, Baltimore and Ohio Railroad: Rebuilt in 1889; 8 feet span, 28 feet wide; in fair condition; recommended to be arched.

42. Riggs road, second bridge east of Metropolitan Branch, Baltimore and Ohio Railroad: 4 feet 6 inches span; 24 feet wide; rebuilt in 1888; in fair condition; recommended to be arched.

43. Queens Chapel road, south of Bunker Hill road: 4 feet span; 20 feet wide; rebuilt in 1891; in fair condition; recommended to be arched.

44. Bunker Hill road, east of Queens Chapel road: 10 feet span; 21 feet wide; built in 1891; in good condition.

45. Sargent road, near Bunker Hill road: 10 feet span; 24 feet wide; built prior to 1886; in fair condition.

46. Queens Chapel road, north of Bunker Hill road: 8 feet span; 22 feet wide; in fair condition; recommended to be arched.

47. Queens Chapel road, near District line: 5 feet 6 inches span; 24 feet wide; in fair condition; recommended to be arched.

48. Brentwood Road, near District line: 6 feet span, 18 feet wide; built in 1889; in poor condition; recommended to be arched.

49. Anacostia or River road over Watts Branch: 50 feet span, 18 feet wide; rebuilt in 1890; wooden Howe truss, about 80 pounds capacity per square foot; in fair condition.

50. Bennings Road, near Central avenue: Has just been replaced by a 6-foot arch culvert.

51. Anacostia or River road, near Bennings road: 18 feet span; 20 feet wide; built in 1886; in fair condition.



52. Bennings road, over Anacostia River; 500 feet span; roadway 24 feet wide; sidewalks 5 feet wide each; built 1891-'92; consists of 200 feet iron trestle, 25 feet bents; 100 feet, 33 feet 4 inches bents; and 200 feet, 25 feet bents. Capacity, 100 pounds per square foot; in good condition.

53. Anacostia or River road, first bridge east of Pennsylvania avenue: 14 feet span; 24 feet wide; built in 1885; in fair condition.

54. Pennsylvania avenue bridge, over the Anacostia River: Length, 1,520 feet; roadway, 24 feet wide; sidewalks, 4 feet wide each. The present structure was built by the United States under authority of an act of Congress approved February 23, 1887, by which an appropriation of \$110,000 was made, one-half of which was charged against the revenues of the District of Columbia. The contract was made with the Groton Bridge and Manufacturing Company, of Groton, N. Y. Under act approved May 14, 1888 an additional appropriation of \$60,000 was made to enable the structure to be conformed to the new location of the tracks of the Baltimore and Potomac Railroad Company, thus making the total cost of the work \$170,000. The structure consists of two through spans of 151 feet each, one deck span of 136 feet, eight deck spans of 112 feet each, one deck span of 120 feet, and two panels of iron trestle of 18 feet span each, all measured on the center line. The river piers are on a skew. The masonry is sandstone, resting on pile and grillage foundations. The roadway grade is 35 feet above low tide. The bridge was opened to public travel March 20, 1890, and transferred to the charge of the District of Columbia July 28, 1890. Its capacity is 100 pounds per square foot. The iron Pratt trusses are in good condition, except that they need painting. The floor system is in good condition.

During the fall of 1891 the construction of the new embankment of the Baltimore and Potomac Railroad caused a displacement of the pier at the south end of the second through span towards the river channel. On September 16 the Engineer Commissioner called upon the railroad company for a bond of \$20,000 to protect the District's interests in case of damage to the structure, and such bond was given. After further correspondence a deposit of \$50 was made by the railroad company October 31, 1891, to cover the cost of repairs necessitated by the pier's movement. A portion of these have been made from time to time and a balance of \$29.50 remains. The movement of the pier has not yet entirely ceased.

55. Navy Yard bridge, over the Anacostia River: Length, 1,260 feet; roadway, 20 feet wide; sidewalks, 5 feet wide each; consists of twelve through spans of 100 feet span each and one draw span, on the Bascule principle, 36 feet span. The present structure was built by the United States under an appropriation of \$146,000 by act of Congress approved June 22, 1874. The contract was executed by Clark, Reeves & Co., of Phoenixville, Pa. The structure was opened to public travel June 17, 1875. Its condition is as satisfactory as its nature will permit, but it is safe only under slow travel, and the substructure is poor.

56. T street, near Sheridan avenue: 10 feet span, 16 feet wide; built in 1891; abutments scoured along their faces; otherwise in fair condition.

57. Sheridan avenue, first bridge east of Nichols avenue: 5 feet span, 20 feet wide; built prior to 1878; in fair condition; recommended to be arched.

58. Stanton avenue, south of Sheridan avenue: 12 feet span, 18 feet wide; in fair condition.

59. Douglass avenue, at Stanton avenue: 6 feet span, 20 feet wide; has no abutments; in poor condition; recommended to be arched.

60. Sheridan avenue, second bridge east of Nichols avenue; has just been converted into a double pipe culvert.

61. Wheeler road, over Oxen Run: 20 feet span, 23 feet wide; rebuilt in 1889; in good condition.

62. Livingston road, over Oxen Run: 31 feet span, 22 feet wide; reconstructed with steel girders in 1892; in good condition.

63. Giesboro road, near Livingston road: 7 feet span, 17 feet wide; wood abutments; in poor condition; recommended to be arched.

64. Livingston road, near District line: 15 feet 6 inches span, 17 feet wide; built in 1887; in fair condition.

65. Naylor road, near District line: 8 feet span, 24 feet wide; built prior to 1878; in fair condition; recommended to be arched.

66. Lovers Lane, second bridge from Road street. Status as a public bridge not fully established; in poor condition.

67. Monastery road, south of Queens Chapel road; 20 feet span, 12 feet wide; no abutments; built in 1892; in fair condition.

68. Central avenue, east of Metropolitan branch of Baltimore and Ohio Railroad; 12 feet span, 12 feet wide; superstructure rebuilt in 1892; in fair condition.

In addition to these structures there are about 100 culverts of various sizes and lengths whose care is charged to the appropriation for construction and repair of bridges. They are generally in good condition.

# 572 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

The following statement exhibits the expenditures made under my requisitions since March 1, 1892, under appropriation for construction and repair of bridges, 1892:

## Expenditures by engineers of bridges.

Order.	Bridge.	Amount.	Remarks.
5	34	\$536.60	Material for repairs.
7	48	3 50	Labor repairing washout.
8	62	8.00	Trestling truss pending reconstruction.
9	59	8.00	Rebuilding old wooden abutments.
10	62	356.21	Reconstructing superstructure.
11	Various.	14.74	Preparing bridge signs.
12	10	56.96	Reconstructing superstructure.
13	08	30.51	Do.
14	67	57.10	Do.
15	63	29.00	Repairing superstructure.
16	24	33.78	Repairing floor.
17	55	91.98	Do.
18	60	63.20	Replacing structure with double pipe culvert.
19	13	15.40	Repairing bottom chord center splice.
20	19	11.75	Putting in extra truss rods.
21	7	17.57	Building storeroom for painting materials.
22	31	27.34	Same, and removing dirt from around posts.
23	54	11.00	Building storeroom for painting materials.
24	56	3.43	Putting shores between abutments.
25	Culvert.	2.75	Replacing broken pipe on Sheridan avenue.
26	7	52.50	Adjusting truss rods, laterals, and aways.
27	7	54.00	Constructing railing on north abutment.
	7	8.00	Lumber for repairing floor.
	54	33.06	Do.
	Various.	30.60	Tools (on hand).
	Various.	2.25	Spikes (on hand).
	38	2,842.81	Reconstruction under contract 1624.
	7	1,493.13	Painting under contract 1629.
	31	600.21	Painting under contract 1642.
		6,495.38	

## Expenditures by superintendent of roads.

Bridge.	Amount.	Bridge.	Amount.
Bennings bridge .....	\$62.10	Bridge on Military road .....	\$32.75
Bridge on Livingston road .....	62.23	Bridge on River road .....	40.75
Culvert on Harrison street .....	35.75	Culvert on Grant road .....	38.90
Bridge on Bennings road .....	324.62	Bridge on Bunker Hill road .....	47.00
Bridge on Anacostia road .....	60.15	Culvert on Bladensburg road .....	256.57
Chain bridge .....	2,431.01	Culvert on First street extended, NW .....	8.00
Bridges on Murdock Mill road .....	354.18	Miscellaneous .....	23.45
Bridge on Chappell road .....	434.87		
Culvert on Canal road .....	211.06		
Bridge on Daniels road .....	174.15		
		Total .....	4,597.54

## Expenditures by superintendent of streets.

Bridge.	Amount.	Bridge.	Amount.
Anacostia bridge .....	\$1,562.70	Miscellaneous .....	335.63
K street bridge, over Rock Creek .....	996.15		
New free bridge .....	978.17		
M street bridge, over Rock Creek .....	15.00		
		Total .....	3,887.65

## RECAPITULATION.

Expended by—	
Engineer of bridges .....	\$6,495.38
Superintendent of roads .....	4,597.54
Superintendent of streets .....	3,887.65
Total .....	14,980.57

Outstanding liabilities are included in the above statements.

*List of inspectors, etc.*

Name.	Designation.	Rate per diem.	Time, days.	Amount.
Thomas McMahon.....	Inspector.....	\$4.00	3	\$12.00
Thomas McMahon.....	do.....	3.00	11	33.00
J. A. Colby .....	Mill and shop inspection (bridge No. 38).....			25.00

## ORDINARY CARE OF BRIDGES.

The appropriation for ordinary care of bridges is principally charged with the payment of the salaries of the bridge-keepers. There are six of these permanently employed—one for general duty on all the bridges, one at Chain bridge, one at Aqueduct bridge, two at Navy Yard bridge (where the operation of the draw requires that number), and one at the Pennsylvania Avenue bridge over the Eastern Branch. Except in the case of R. D. McClure, who is engaged on very necessary general work, the offices performed by these men are almost entirely those of a policeman.

Expenditures from appropriation for ordinary care of bridges, 1892:

Total appropriation.....	\$5,000.00
Amount expended.....	4,526.14
Unexpended balance.....	473.86

## SPEED OF TRAVEL.

The existing law restricts vehicle travel to a walk on all bridges in the District. I take this occasion to emphasize the fact that, structurally speaking, there is no proper reason for the enforcement of this restriction on the great majority of the structures under my charge. The statute is obsolete, its restrictions are vexatious, and its repeal has been and is here again recommended. It would be a public convenience, which there is no fair reason to withhold, to permit the District Commissioners to establish a reasonable maximum rate of travel, in their discretion. There would result, however, the necessity for a greater degree of care in inspection of the structures by reason of the more severe life they would experience, a duty which a proper organization could easily accomplish at comparatively slight cost.

## INCREASE OF BRIDGE WORK.

Attention is called to the fact that since September, 1888, when the Aqueduct bridge was transferred to the care of the Commissioners, five large bridges (Aqueduct, Pennsylvania Avenue, Woodley Lane, and Connecticut Avenue, over Rock Creek, and over Klinge road), as well as a number of smaller ones, have been acquired in various ways, increasing the lineal aggregate of bridge structures 140 per cent. The structures lately acquired are now just arriving at the state when their perishable portions require renewal and the conditions presented are such as have not heretofore existed in the same degree. This circumstance is the basis for the estimate made for construction and repair of bridges, 1894. The policy recommended for the expenditure of this appropriation is to add to the permanency of existing structures whenever opportunity occurs. Such small structures as can be properly so treated should be converted into arches of masonry, while somewhat larger spans should be floored with a wearing surface of pine overlying creosoted plank and supported by steel joists, or some equivalent permanent construction.

## RECOMMENDATIONS.

It is a fortunate circumstance that Aqueduct bridge, No. 7, is capable of sustaining a first-class asphalt floor supported by steel joists and buckle plates. If such improvement be limited to the roadway portion of the structure the estimated cost would be \$45,000, and if extended to the sidewalks, \$65,000.

The resulting structure would have a live load capacity of 85 pounds per square foot. As the floor of this bridge is at present in need of renewal, I recommend that an appropriation be asked for the purpose described.

In respect to the Rock Creek bridges, provision has been made in the appropriation bill for 1893 for securing a safe but not a suitable structure as M street, and the same action is anticipated in regard to that at P street. No present provision is expected in respect to the K-street bridge. Unless the Rock Creek valley is soon to be



converted into a covered waterway, these bridges should be so reconstructed that they shall be second to none in the District, and a new structure should be built at Q street. Estimates for the reconstruction of the existing structures have already been submitted to Congress, while an intelligent report and estimate on the Q-street structure would require a detailed survey, which has not been made at the present time.

The reconstruction of the Navy-Yard or Anacostia bridge has been recommended for several years. It is a low, narrow structure, of light capacity, deficient in strength both as to substructure and superstructure. Its draw is a wretched affair and a great obstacle to the large travel over the bridge. The structure is notoriously unequal to the needs of traffic.

It seems best, after careful and full consideration, to adhere to the following plan for reconstruction: The span of the new bridge should be reduced to 800 feet, the channel width contemplated by the board on harbor lines of Anacostia River, by extending the embankment approach at the south end of the bridge. The grade should be raised so as to provide a clear headroom of 20 feet above low tide. The type of structure should be a plate-girder construction carrying a paved floor system not less than 50 feet in width. Such a construction would permit the passage of such water travel as has occasion to go above it, while a draw, should such a detail hereafter be needed, can be interpolated hereafter at any desired point without an extravagant outlay for maintenance, such as its present construction would involve; while its cost of construction at a future time would not exceed materially its present cost, since the displaced portions of the bridge could be used elsewhere.

The estimated cost of this work, including changes to the approaches, is \$250,000, and I recommend that an appropriation be asked for the purpose.

The bridge structures throughout the District are generally not of the high quality that characterizes other portions of its public works, the result of an economy that has existed in the past and the accumulated deficiencies of which must be met by present comparatively large expenditures. This is the justification of the increased estimates I submit.

For the regular appropriations the following sums are recommended for the fiscal year 1894:

Ordinary care of bridges.....	\$5,000
Construction and repair of bridges.....	20,000
Respectfully submitted.	

C. B. HUNT,  
*Engineer of Bridges.*

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

## REPORT OF ENGINEER IN CHARGE OF SURVEYS.

WASHINGTON, D. C., July 20, 1892.

SIR: I have the honor to submit the following report of work on surveys for subdivision of land for the year ending June 30, 1892.

The division has been under my charge since November 1, 1892, Mr. F. P. Spalding having charge from June to October.

Fieldwork has consisted in measurements by tape between the various suburban subdivisions, in connections by triangulation, in producing street and azimuth lines and marking them on the ground by monuments, and in locating street lines in tracts where application has been made for such.

Sixteen sets of measurements by steel tape have been made for connecting the different subdivisions. These lines have been run mostly on proposed streets and the azimuths of the streets compared by measured angles. This will better enable the office to form some plan for intermediate streets.

As a more thorough check upon the work, connections were made on U. S. Coast and Geodetic points by a system of small triangles, about sixty triangles being measured.

Street lines were produced where it was possible to do so without much cutting. In the northeast, Eighth, Twelfth, and Fifteenth streets and Rhode Island and New York avenues have been located to within a short distance of the District of Columbia line.

In the vicinity of Brightwood several meridian and cross lines have been established. In the northwest, Thirty-eighth street is now located from Burleith to the District line, and several minor lines are marked out. Stone monuments, about Fifty in all, numbered and marked "D. C.," have been set out to designate the various lines.

Street lines have been located in ten tracts where it was proposed to subdivide, and three subdivisions of these have been recorded.

*Office work.*—For a better aid in all the work, maps of the northern part of the District have been drawn to a scale of 200 feet to the inch. These are on twelve sheets and the six will admit of much detail matter and will afford a better study of the whole subject. The plotting on these sheets has been carried as far as the records of this office go, and it is intended to add to them as more data is gathered.

Maps showing the dedication of Massachusetts avenue extended NW. of Sixteenth street extended north of Boundary and of T street between Lincoln avenue and Eckington have been submitted and recorded.

Small plats and tracings have been prepared at different times during the year, showing where produced street lines cut certain tracts or property lines.

A complete set of Geodetic Survey maps of the District have been mounted and all existing subdivisions have been plotted on them.

*Plan of subdivision.*—A map is herewith submitted showing the positions of all recorded subdivisions.

An outline of the plan to be followed in connecting some of these subdivisions was given in the last annual report of this office. Mention was also made of the "necessity for some immediate action with regard to the irregular subdivisions lying near the city" and of some plan of subdivision for rough sections.

In the vicinities of Le Droit Park and Mount Pleasant the rapid building now going on is making a general plan of subdivision more difficult and improbable.

If some scheme were at once gotten up for rectifying this locality it might at least prevent any building being done on proposed lines of streets.

Next to this it is important that some departure from straight line extension be allowed in the rough portions of the District, particularly in the southeast. The topography in these parts should govern to a great extent the location of the streets.

The appropriation for the year at hand will not admit of a great amount of work being done, but in view of any plans that may be desired, I would suggest that the irregular divisions nearest the city be first considered.

Very respectfully,

WM. P. RICHARDS,  
*Assistant Engineer in Charge.*

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

# 576 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## REPORT OF PARKING COMMISSION.

WASHINGTON, D. C., August 20, 1892.

SIR: We have the honor to submit the following paper of Mr. T. Lanham, Superintendent of Parking Commission, as our report for the year ending June 30, 1892.

Respectfully,

WM. R. SMITH,  
JOHN SAUL,  
WILLIAM SAUNDERS,  
Parking Commissioners.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

WASHINGTON, D. C., July 21, 1892.

GENTLEMEN: I have the honor to submit the following statement of work done under the supervision of this office during the year ending June 30, 1892.

In addition to the usual routine work of trimming, cultivating, boxing, and shaping trees, etc., 3,992 old tree boxes were removed, and from these 3,500 boxes were made and used around trees just planted and those of a few years' growth whose boxes needed replacing.

Five thousand eight hundred and three trees which stood on streets most liable to injury from horses were protected with woven wire.

Two thousand eight hundred and twenty-one young trees were planted on the streets and avenues of the city and along streets extended outside of the city limits.

Five thousand three hundred and twenty-five seedlings were planted in the nursery, all of which are in excellent condition.

Four hundred and ninety-seven old trees which had become objectionable from various causes have been removed from the streets.

Caterpillars appeared on the trees of the city in small numbers only, and were destroyed without injury to the trees.

Trees on streets and roads, as shown by last report .....	69,814
Trees planted.....	2,821

	72,635
Trees removed.....	497

Trees now on streets.....	72,138
---------------------------	--------

NOTE.—Seventy-three additional trees were removed and paid for from appropriations other than that for the Parking Commission, but as these trees had not been included in the number of trees under control of the Parking Commission, they have not been deducted.

Appropriation .....	\$19,000.00
Labor and cart hire.....	\$15,649.17
Forage for two horses.....	280.71
Horseshoeing.....	25.50
Repairing and sharpening tools.....	50.98
Harness and wagon repairs.....	65.55
Wire netting for trees, and inclosing C street parking between First and Arthur streets .....	1,593.00
Cost of soil.....	261.80
Tree stakes.....	292.50
Other materials, nails, straps, etc .....	578.68
	18,794.89

Balance unexpended.....	205.11
-------------------------	--------

Work done by Parking Commission and paid for from other appropriations—Individuals and companies.

Removing of trees from various streets.....	\$454.92
Trimming trees for Western Union Telegraph Company .....	25.00
Improving C street parking by Washington and Georgetown Railroad Company .....	40.00
Improving circle at intersection of Connecticut and Florida avenues....	82.50
Planting trees at Tunlaw Heights, paid by Britton & Beall.....	355.17
Total .....	\$957.59



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 577

*Estimates for labor and materials for fiscal year ending June 30, 1894.*

For the purchase of woven wire and the continuation of the wiring of trees.	\$3, 000
To continue the planting of trees, care of the nursery and the mowing of street parkings, paving around tree spaces, and cultivation of trees.	15, 000
Lumber of tree boxes and tree stakes.....	1, 500
For the removal of objectionable trees and the trimming of trees.....	6, 000
Total .....	25, 500

In conclusion, I would state that a smaller sum than that estimated is insufficient for the proper conduct of the work in hand.

Very respectfully,

TRUEMAN LANHAM,  
*Superintendent of Parking.*

The PARKING COMMISSION, DISTRICT OF COLUMBIA.

## REPORT OF SUPERINTENDENT OF PROPERTY.

SIR: I have the honor to submit the annexed report, showing purchase of construction materials for appropriations, 1891-'92.

Appropriations for 1893-'94 are requested as follows:

Contingent expenses engineer stables.....	\$6,000
Rent and care of property yards, including erection of platform scales at Canal street property yard.....	1,000

### *Materials purchased on account of appropriations.*

Material.	Quantity.	Cost.
<i>Work on streets and avenues.</i>		
Granite curbing.....linear feet..	21, 540. 55	\$22, 464. 42
Granite blocks.....number..	57, 307	2, 634. 40
Asphalt blocks.....do..	370	26. 27
Vitrified paving bricks.....do..	88, 182	1, 629. 65
Red paving bricks.....do..	985, 270	8, 861. 45
Red sewer bricks.....do..	4, 750	38. 01
Cement.....barrels..	2	2. 40
Sewer pipe.....feet..	85	18. 68
Castings.....number..	7	77. 33
Sand.....cubic yards..	$\frac{1}{2}$	. 15
Oak stakes.....number..	450	15. 75
		35, 768. 51
<i>Constructing county roads.</i>		
Granite curbing.....linear feet..	2, 911. 86	3, 028. 45
Granite blocks.....number..	334, 956	15, 334. 06
Red paving bricks.....do..	286, 760	2, 864. 54
Red sewer bricks.....do..	2, 100	21. 06
Cement.....barrels..	116	139. 20
Sewer pipe.....feet..	588	657. 60
Castings.....number..	2	26. 18
		22, 071. 03
<i>Permit work (sidewalks, alleys, and sewers).</i>		
Granite curbing.....linear feet..	4, 726. 26	4, 408. 97
Granite blocks.....number..	28, 298	1, 216. 81
Asphalt blocks.....do..	221, 468	15, 724. 23
Asphalt tiles.....do..	122, 651	7, 259. 85
Vitrified tiles.....do..	2, 000	58. 61
Vitrified paving bricks.....do..	2, 619, 711	47, 496. 31
Red paving bricks.....do..	1, 095, 097	10, 063. 99
Red sewer bricks.....do..	164, 776	1, 354. 62
Vitrified sewer bricks.....do..	6, 568	164. 20
Cement.....barrels..	3, 814 $\frac{1}{2}$	4, 651. 32
Sewer pipe.....feet..	17, 852	6, 428. 73
Sewer-pipe branches and bends.....number..	807	1, 084. 67
Sewer, invert blocks.....feet..	287	141. 50
Castings.....number..	1, 132	1, 633. 03
Sand.....cubic yards..	9. 137 $\frac{1}{2}$	5, 392. 56
Broken stone.....do..	1, 174. 15	1, 829. 67
Pebbles.....do..	12	11. 40
Lumber (B. M.).....feet..	109, 433	1, 727. 66
Pitch.....barrels..	23	118. 08
		110, 766. 21

# 578 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Materials purchased on account of appropriations—Continued.

Materials.	Quantity.	Cost.
<i>Paving and curbing roadways.</i>		
Granite curbing.....linear feet..	6,947.25	\$6,128.84
Vitrified paving bricks.....number..	145,110	2,304.35
		8,433.19
<i>Current repairs to streets, avenues, and alleys.</i>		
Granite curbing.....linear feet..	64.5	92.23
Granite blocks.....number..	1,250	53.75
Asphalt blocks.....do..	15,952	1,015.62
Vitrified paving bricks.....do..	268,044	4,973.67
Red paving bricks.....do..	11,700	104.48
Bluestone flagging.....piece..	1	3.06
Cement.....barrels..	1,297	1,573.34
Sewer pipe.....feet..	275	31.38
Castings.....number..	18	143.63
Bluestone trap.....do..	1	16.00
Lumber (B. M.).....feet..	6,138	79.59
Sand.....cubic yards..	2,044 $\frac{1}{2}$	1,206.17
Pebbles.....do..	33 $\frac{1}{2}$	31.50
Pitch.....barrels..	101	294.57
		9,618.99
<i>Current repairs to county roads.</i>		
Red paving bricks.....number..	2,334	24.34
Sewer pipe.....feet..	630	494.74
Sewer-pipe bend.....number..	1	1.95
Lumber (B. M.).....feet..	47,962	651.51
		1,172.54
<i>Repairs to concrete pavements.</i>		
Granite blocks.....number..	53,000	2,342.35
Sand.....cubic yards..	182	107.38
Pebbles.....do..	15 $\frac{1}{2}$	14.57
Pitch.....barrels..	62	273.15
		2,737.45
<i>Construction and repair of bridges.</i>		
Sewer bricks.....number..	9,833	98.33
Rubble stone.....cubic yards..	29	72.50
Cement.....barrels..	268	444.80
Sewer pipe.....feet..	48	31.20
Lumber (B. M.).....do..	119,839	3,262.13
Sand.....cubic yards..	16 $\frac{1}{2}$	10.00
		3,918.96
<i>Benning's Road bridge.</i>		
Cement.....barrels..	143	391.82
Sewer pipe.....feet..	324	90.72
Sewer-pipe bends.....number..	2	2.10
Sand.....cubic yards..	3	1.77
Broken stone.....do..	2	3.50
		489.91
<i>Ordinary care of bridges.</i>		
Lumber.....feet..	156	6.32
<i>Main and pipe sewers.</i>		
Vitrified paving bricks.....number..	2,000	36.75
Vitrified sewer bricks.....do..	220,000	5,500.00
Red sewer bricks.....do..	67,300	542.15
Cement.....barrels..	7,132	8,607.68
Sewer pipe.....feet..	23,126	11,064.96
Sewer-pipe branches and bends.....number..	1,258	2,734.84
Vitrified invert blocks.....feet..	1,850	840.77
Sand.....cubic yards..	250 $\frac{1}{2}$	148.03
Broken stone.....do..	295.41	488.01
Castings.....do..	341	1,270.04
Bluestone traps.....number..	4	96.00
Lumber (also 10,940 oak stakes).....feet..	6,630	173.38
		31,502.61

*Materials purchased on account of appropriations—Continued.*

Material.	Quantity.	Cost.
<i>Constructing suburban sewers.</i>		
Vitrified sewer invert bricks.....number..	148,109	\$3,702.72
Sewer bricks.....do.....	11,868	116.56
Cement.....barrels..	4,274½	5,264.15
Sewer pipe.....feet..	10,317	5,700.72
Sewer-pipe branches.....number..	546	1,204.92
Vitrified invert blocks.....feet..	5,500	2,750.00
Castings.....number..	211	637.53
Lumber (B. M.).....feet..	1,280	16.25
Sand.....cubic yards..	49½	29.40
Broken stone.....do.....	9.73	15.43
		19,437.68
<i>Replacing obstructed sewers.</i>		
Sewer bricks.....number..	19,600	156.55
Cement.....barrels..	1,500	1,800.00
Sewer pipe.....feet..	7,861	3,504.28
Branches, bends, and traps.....number..	677	1,095.16
Sand.....cubic yards..	339½	200.60
Broken stone.....do.....	733.86	1,177.34
Castings.....number..	263	379.78
Lumber (B. M.).....feet..	4,074	52.39
		8,366.10
<i>Cleaning and repairing sewers and basins.</i>		
Vitrified sewer bricks.....number..	30,346	758.65
Red sewer bricks.....do.....	52,100	428.50
Cement.....barrels..	575	805.50
Sewer pipe.....feet..	676	265.60
Sewer-pipe branches, bends, and traps.....number..	10	9.21
Vitrified invert blocks.....feet..	40	20.00
Castings.....number..	215	564.96
Bluestone trap.....do.....	1	16.00
Sand.....cubic yards..	17 7½	105.51
Broken stone.....do.....	164.52	263.50
Lumber (B. M.).....feet..	10,735	149.12
		3,386.55
<i>Gauging sewers and rainfall.</i>		
Sewer bricks.....number..	4,400	35.20
Sewer pipe.....feet..	15	9.75
Cement.....barrels..	13	15.60
Sand.....cubic yards..	4½	2.78
Broken stone.....do.....	3	.58
Lumber.....feet B. M..	446	10.84
		74.75
<i>Contingent expenses engineer stables.</i>		
Sewer pipe.....feet..	60	8.40
Sand.....cubic yards..	14½	8.76
Cement.....barrels..	24	28.80
Lumber, also 13 cedar posts.....feet B. M..	6,837	166.75
Castings.....number..	2	6.16
		218.87
<i>Pumping expenses and pipe distribution.</i>		
Sewer pipe.....feet..	800	72.00
Sand.....cubic yards..	73½	43.75
Cement.....barrels..	40	54.16
		169.91
<i>Purchase and repair of pumps.</i>		
Sewer pipe.....feet..	798	71.82
Cement.....barrels..	18	27.76
Sand.....cubic yards..	24½	14.31
		113.89
<i>Contingent expenses fire department.</i>		
Sand.....cubic yards..	31½	18.58



## Materials purchased on account of appropriations—Continued.

Material.	Quantity.	Cost.
<i>Emergency fund.</i>		
Lumber.....feet.	4,793	\$60.86
<i>Plumbers' assessment fund.</i>		
Asphalt blocks.....	200	14.20
Vitrified paving bricks.....	650	10.71
Sand.....cubic yards.	191½	112.90
Cement.....barrels.	704	844.80
Pitch.....do.	13	61.20
		<u>1,043.81</u>
<i>Various deposits.</i>		
Vitrified paving bricks.....number.	8,608	115.94
Vitrified sewer bricks.....do.	35,674	891.85
Sewer pipe.....feet.	4,819	920.93
Sewer-pipe branches.....do.	149	184.23
Sand.....cubic yards.	1,450½	873.28
Broken stone.....do.	528.55	1,034.25
Cement.....barrels.	3,381	4,065.67
Granite curbing.....feet.	18.35	15.96
Vitrified tiles.....number.	400	11.72
Artificial stone tiles.....do.	400	106.00
Asphalt tiles.....do.	900	53.25
Asphalt blocks.....do.	3,538	251.20
Castings.....do.	182	284.37
Pitch.....barrels.	37	160.65
Red sewer bricks.....number.	3,2116	257.81
Lumber.....feet.	6,391	82.93
Pebbles.....cubic yards.	14	13.30
		<u>9,323.34</u>
Total.....		<u>268,700.06</u>

## Total amount and value of material furnished according to class.

Material.	Quantity.	Value.
<i>Granite curbing.</i>		
Work on streets and avenues.....feet.	21,540.55	\$22,464.42
Constructing county roads.....do.	2,911.86	3,028.45
Permit work.....do.	4,726.26	4,408.97
Paving and curbing roadways.....do.	6,947.25	6,128.84
Current repairs to streets, etc.....do.	64.5	92.23
Deposits.....do.	18.35	15.96
	<u>36,208.77</u>	<u>36,138.87</u>
<i>Granite blocks.</i>		
Work on streets and avenues.....number.	57,307	2,634.40
Constructing county roads.....do.	334,956	15,334.06
Permit work.....do.	28,298	1,216.81
Current repairs to streets, etc.....do.	1,250	53.75
Repairs to concrete pavements.....do.	53,000	2,342.35
	<u>474,811</u>	<u>21,581.37</u>
<i>Asphalt blocks.</i>		
Work on streets and avenues.....number.	370	26.27
Permit work.....do.	221,468	15,724.23
Current repairs to streets, etc.....do.	15,952	1,015.62
Deposits.....do.	3,538	251.20
Plumbers' assessment fund.....do.	200	14.20
	<u>241,528</u>	<u>17,031.52</u>
<i>Asphalt tiles.</i>		
Permit work.....number.	122,651	7,259.85
Deposits.....do.	900	53.25
	<u>123,551</u>	<u>7,313.10</u>

## Total amount and value of material furnished according to class—Continued.

Material.	Quantity.	Value.
<i>Sewer pipe.</i>		
Work on streets and avenues.....feet..	85	\$18. 68
Constructing county roads.....do..	533	657. 60
Permit work.....do..	17, 852	6, 428. 73
Current repairs to streets, etc.....do..	275	31. 38
Current repairs to county roads.....do..	630	494. 74
Construction and repair of bridges.....do..	48	31. 20
Bennings road bridge.....do..	324	90. 72
Main and pipe sewers.....do..	23, 126	11, 064. 96
Constructing suburban sewers.....do..	10, 317	5, 700. 72
Replacing obstructed sewers.....do..	7, 861	3, 504. 28
Cleaning and repairing sewers and basins.....do..	676	265. 60
Pumping expenses and pipe distribution.....do..	800	72. 00
Purchase and repair of pumps.....do..	798	71. 82
Contingent expenses, engineer stables.....do..	60	8. 40
Deposits.....do..	4, 819	920. 93
Gauging sewers and rainfall.....do..	15	9. 75
	68, 274	29, 371. 51
<i>Vitrified paving bricks.</i>		
Work on streets and avenues.....number..	88, 182	1, 629. 65
Permit work.....do..	2, 619, 711	47, 496. 31
Paving and curbing roadways.....do..	145, 110	2, 304. 35
Current repairs to streets, etc.....do..	268, 044	4, 973. 67
Main and pipe sewers.....do..	2, 000	36. 75
Plumbers' assessment fund.....do..	650	10. 71
Deposits.....do..	8, 608	115. 94
	3, 132, 305	56, 567. 38
<i>Sewer bricks.</i>		
Work on streets and avenues.....number..	4, 750	38. 01
Constructing county roads.....do..	2, 100	21. 00
Permit work.....do..	164, 776	1, 354. 62
Construction and repair of bridges.....do..	9, 833	98. 33
Main and pipe sewers.....do..	67, 300	542. 15
Constructing suburban sewers.....do..	11, 866	116. 56
Replacing obstructed sewers.....do..	19, 600	156. 55
Cleaning and repairing sewers and basins.....do..	52, 100	428. 50
Deposits.....do..	32, 116	257. 81
Gauging sewers and rainfall.....do..	4, 400	35. 20
	368, 841	3, 048. 73
<i>Red paving bricks.</i>		
Work on streets and avenues.....number..	985, 270	8, 861. 45
Constructing county roads.....do..	286, 760	2, 864. 54
Permit work.....do..	1, 095, 097	10, 063. 99
Current repairs to county roads.....do..	2, 334	24. 34
Current repairs to streets, etc.....do..	11, 700	104. 48
	2, 381, 161	21, 918. 80
<i>Vitrified sewer invert bricks.</i>		
Main and pipe sewers.....number..	220, 000	5, 500. 00
Constructing suburban sewers.....do..	148, 109	3, 702. 72
Cleaning and repairing sewers and basins.....do..	30, 346	758. 65
Deposits.....do..	35, 674	891. 85
Permit work.....do..	6, 568	164. 20
	440, 697	11, 017. 42
<i>Vitrified invert blocks.</i>		
Main and pipe sewers.....number..	1, 850	840. 77
Constructing suburban sewers.....do..	5, 500	2, 750. 00
Cleaning and repairing sewers and basins.....do..	40	20. 00
Permit work.....do..	283	141. 50
	7, 673	3, 752. 27
<i>Sand.</i>		
Work on streets and avenues.....cubic yards..	1	. 15
Permit work.....do..	9, 137 $\frac{1}{2}$	5, 392. 56
Current repairs to streets, etc.....do..	2, 044 $\frac{1}{2}$	1, 206. 17
Repairs to concrete pavement.....do..	182	107. 38
Construction and repair of bridges.....do..	163	10. 00
Bennings road bridge.....do..	3	1. 77
Main and pipe sewers.....do..	250 $\frac{5}{8}$	148. 03
Constructing suburban sewers.....do..	49 $\frac{1}{2}$	29. 40
Replacing obstructed sewers.....do..	339 $\frac{1}{2}$	200. 60

## 582 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Total amount and value of material furnished according to class—Continued.

Material.	Quantity.	Value.
<i>Sand—Continued.</i>		
Cleaning and repairing sewers and basins .....	cubic yards.. 177 $\frac{5}{8}$	\$105.51
Pumping expenses and pipe distribution .....	do. 73 $\frac{5}{8}$	43.75
Purchase and repair of pumps .....	do. 24 $\frac{1}{2}$	14.31
Contingent expenses engineer stables .....	do. 14 $\frac{5}{8}$	8.76
Contingent expenses fire department .....	do. 31 $\frac{1}{2}$	18.58
Plumbers' assessment fund .....	do. 191 $\frac{1}{2}$	112.90
Deposits .....	do. 1,450 $\frac{5}{8}$	873.28
Gauging sewers and rainfall .....	do. 4 $\frac{3}{4}$	2.78
	13,992 $\frac{1}{8}$	8,275.93
<i>Sewer pipe branches and bends.</i>		
Permit work .....	number.. 807	1,084.67
Current repairs, county roads .....	do. 1	1.95
Bennings Road bridge .....	do. 2	2.10
Main and pipe sewers .....	do. 1,258	2,734.84
Constructing suburban sewers .....	do. 546	1,204.92
Replacing obstructed sewers .....	do. 677	1,095.16
Cleaning and repairing sewers and basins .....	do. 10	9.21
Deposits .....	do. 149	184.23
	3,450	6,317.08
<i>Cement.</i>		
Work on streets and avenues .....	barrels.. 2	2.40
Constructing county roads .....	do. 116	139.20
Permit work .....	do. 3,814 $\frac{1}{2}$	4,651.32
Current repairs to streets, etc. ....	do. 1,297	1,573.34
Construction and repair of bridges .....	do. 268	444.80
Main and pipe sewers .....	do. 7,132	8,607.08
Constructing suburban sewers .....	do. 4,274 $\frac{1}{2}$	5,264.15
Replacing obstructed sewer .....	do. 1,500	1,800.00
Cleaning and repairing sewers and basins .....	do. 575	805.50
Pumping expenses and pipe distribution .....	do. 40	54.16
Purchase and repair of pumps .....	do. 18	27.76
Contingent expenses engineer stables .....	do. 24	28.80
Plumbers' assessment fund .....	do. 704	844.80
Deposits .....	do. 3,381	4,065.67
Gauging sewers and rainfall .....	do. 13	15.60
Bennings Road bridge .....	do. 143	391.82
	23,302	28,717.00
<i>Broken stone.</i>		
Permit work .....	cubic yards.. 1,174.15	1,829.67
Bennings Road bridge .....	do. 2.00	3.50
Main and pipe sewers .....	do. 295.41	488.01
Constructing suburban sewers .....	do. 9.73	15.43
Replacing obstructed sewers .....	do. 733.86	1,177.34
Cleaning and repairing sewers and basins .....	do. 164.52	263.50
Deposits .....	do. 528.55	1,034.25
Gauging sewers and rainfall .....	do. .33	.58
	2,908.55	4,812.28
<i>Castings (manhole frames, covers, irons, and alley grates and frames).</i>		
Work on streets and avenues .....	number.. 7	77.33
Constructing county roads .....	do. 2	26.18
Permit work .....	do. 1,132	1,633.03
Current repairs to streets, etc. ....	do. 18	143.63
Main and pipe sewers .....	do. 341	1,270.04
Constructing suburban sewers .....	do. 211	637.53
Replacing obstructed sewers .....	do. 263	379.78
Cleaning and repairing sewers and basins .....	do. 215	564.96
Contingent expenses, engineer stables .....	do. 2	6.16
Deposits .....	do. 182	284.37
	2,373	5,023.01
<i>Vitrified tile.</i>		
Permit work .....	number.. 2,000	58.61
Deposits .....	do. 400	11.72
	2,400	70.33



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 583

Total amount and value of material furnished according to class—Continued.

Material.	Quantity.	Value.
<i>Pebbles.</i>		
Permit work.....cubic yards..	12	\$11. 40
Current repairs to streets, etc.....do..	33½	31. 50
Repairs to concrete pavements.....do..	15½	14. 57
Deposits.....do..	14	13. 30
	74½	70. 77
<i>Bluestone traps.</i>		
Current repairs to streets, etc.....number..	1	16. 00
Main and pipe sewers.....do..	6	96. 00
Cleaning and repairing sewers and basins.....do..	1	16. 00
	8	128. 00
<i>Bluestone flagging.</i>		
Current repairs to streets.....pieces..	1	3. 06
<i>Rubble stone.</i>		
Construction and repair of bridges.....cubic yards..	29	72. 50
<i>Pitch.</i>		
Permit work.....barrels..	28	118. 08
Current repairs to streets, etc.....do..	101	294. 57
Repairs to concrete pavements.....do..	62	273. 15
Plumbers' assessment fund.....do..	13	61. 20
Deposits.....do..	37	160. 65
	241	907. 65
<i>Lumber.</i>		
Work on streets and avenues.....	*450	15. 75
Permit work.....	109, 433	1, 727. 66
Current repairs to streets, etc.....	6, 138	79. 59
Current repairs to county roads.....	47, 962	651. 51
Construction and repair of bridges.....	119, 839	3, 262. 13
Ordinary care of bridges.....	156	6. 32
Main and pipe sewers.....	{ 6, 630 }	{ 173. 38 }
Constructing suburban sewers.....	*10, 940	16. 25
Repairing obstructed sewers.....	1, 280	52. 49
Cleaning and repairing sewers and basins.....	4, 074	149. 12
Contingent expenses engineer stables.....	10, 735	166. 75
Emergency fund.....	† 13	60. 86
Deposits.....	6, 837	82. 93
Gauging sewers and rainfall.....	4, 793	10. 84
	6, 391	
	446	
	324, 714	6, 455. 48
<i>Artificial stone tile.</i>		
Deposits.....number..	400	106. 00
Total.....		268, 700. 06

\* Stakes. † Cedar posts.

Respectfully submitted.

LOUIS T. BOISEAU,  
Superintendent of Property.

The ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA.  
(Through Capt. G. J. Fiebeger.)

## 584 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*List of inspectors on surface work for fiscal year ending June 30, 1882.*

Name.	Work on streets and avenues.		Constructing county roads.		Curbing and paving roadways.		Permit work.	
	Days.	Amount.	Days.	Amount.	Days.	Amount.	Days.	Amount.
E. Y. Beggs	129	\$903.00						
Thos. McMahon	139	556.00	3	\$12.00				
C. R. Unger	251	1,004.00						
E. P. Hicky					14	\$56.00		
J. N. Clarkson	158	632.00	26	104.00	12	48.00		
J. A. Breen	35	140.00	50	200.00				
Wm. Brown	96	384.00	11	44.00	6	24.00		
R. McMurray	221½	886.00						
W. E. Burton	114	456.00						
F. A. Beuter	24	96.00	126	504.00				
Thos. Clagett	114	456.00	3	12.00	8	32.00		
T. B. McCleod	39	148.00	157	628.00				
W. H. Calhoun	86	344.00	85	340.00	3	12.00		
J. H. Crawford	85	340.00	32	128.00	4	16.00		
W. T. Mason			34	136.00				
J. N. Quackenbush	15	60.00						
Henry Naylor			42	168.00				
A. M. Bond	43½	174.00	165	660.00				
J. L. Calhoun	53	212.00	72	288.00				
H. Tinscher	97½	390.00			64	256.00		
Chas. Fernald	294	1,131.90			7	26.95	9	34.65
E. S. Greenwell	279	1,116.00						
R. B. Hunter	64	128.00			2	4.00	3	6.00
Geo. C. Burns	217	434.00			2	4.00	9	18.00
M. Butler	5	7.50						
W. L. Dorsey	209	747.50	11	27.50				
R. L. Morgan							64	128.00
C. D. Pearson							258	516.00
C. Maynard	104	156.00	84½	126.75	11	16.50	9½	14.25
William Talbot	12	18.00					40	60.00
J. Murphy	105	157.50	6	9.00				
Jos. Sembly	24	36.00					1	1.50
Thomas Haas	57	85.50	18	27.00			113	169.50
Edw. McCormick	183	366.00					6	12.00
L. H. Hyer							21	80.85
Thomas Sweeney	2	3.00						
James Renfro	66	99.00	72	108.00			4	6.00
Joe Curran	9	13.50	2	3.00				
Maurice Collins	5½	8.25						
James Washington	15	22.50						
Benjamin Thomas	3½	4.88						
F. W. Hart	23	46.00	25	50.00	4	8.00		
J. A. E. Maroney	157	549.50	4	14.00	5	17.50		
M. Curran	7	10.50						
J. R. Howard	28	112.00	15	60.00				
Louis Mohun	47	94.00	1	2.00			104	208.00
A. C. Owen	55	110.00	46	92.00			43	86.00
J. S. Garland							194	746.90
W. S. Hancock	2½	500.00						
Robert Pollard	35	52.50					5	7.50
Total		12,695.53		3,743.25		520.95		2,095.15

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 585

List of inspectors on surface work for fiscal year ending June 30, 1892.

Name.	Repairs to concrete pavements.		Grading streets.		Total number days.	Rate per day.	Total amount.
	Days.	Amount.	Days.	Amount.			
E. Y. Beggs.....					129	\$7.00	\$903.00
Thos. McMahon.....					142	4.00	568.00
C. R. Unger.....					251	4.00	1,004.00
E. P. Hickey.....					14	4.00	56.00
J. N. Clarkson.....					196	4.00	784.00
J. A. Breen.....					85	4.00	340.40
Wm. Brown.....					113	4.00	452.00
R. McMurray.....					221½	4.00	886.00
W. E. Burton.....					114	4.00	456.00
F. A. Beuter.....					150	4.00	600.00
Thos. Clagett.....					125	4.00	500.00
T. B. McCleod.....					194	4.00	776.00
W. H. Calhoun.....					174	4.00	696.00
J. H. Crawford.....					121	4.00	484.00
W. T. Mason.....					34	4.00	136.00
J. N. Quackenbush.....					15	4.00	60.00
Henry Naylor.....					42	4.00	168.00
A. M. Bond.....					203½	4.00	834.00
J. L. Calhoun.....					125	4.00	500.00
H. Tincher.....					161½	4.00	646.00
Chas. Fernald.....					310	3.85	1,193.50
E. S. Greenwell.....					279	4.00	1,116.00
R. B. Hunter.....					69	2.00	138.00
Geo. C. Burns.....					228	2.00	456.00
M. Butler.....					7	1.50	7.50
W. L. Dorsey.....					310	2.50	775.00
R. L. Morgan.....					64	2.00	128.00
C. D. Pearson.....					258	2.00	516.00
C. Maynard.....	12	\$18.00	17	\$25.50	238	1.50	357.00
William Talbot.....					52	1.50	78.00
J. Murphy.....					111	1.50	166.50
Jos. Sembly.....	2	3.00			27	1.50	40.50
Thomas Haas.....					188	1.50	282.00
Edw. McCormick.....					189	2.00	378.00
L. H. Hyer.....					21	3.85	80.85
Thomas Sweeney.....					2	1.50	3.00
James Renfro.....			25	37.50	167	1.50	250.50
Joe Curran.....					11	1.50	16.50
Maurice Collins.....					5½	1.50	8.25
James Washington.....					15	1.50	22.50
Benjamin Thomas.....					3¼	1.50	4.88
F. W. Hart.....					52	2.00	104.00
J. A. E. Maroney.....	96	336.00			262	3.50	917.00
M. Curran.....					7	1.50	10.50
J. R. Howard.....					43	4.00	172.00
Louis Mohun.....			1	2.00	153	2.00	306.00
A. C. Owen.....			36	72.00	180	2.00	360.00
J. S. Garland.....					194	3.85	746.90
W. S. Hancock.....					2½	2.00	5.00
Robert Pollard.....					40	1.50	60.00
Total.....		357.00		137.00			19,548.88

## SUBDIVISION OF LANDS.

Name.	Days.	Rate of pay.	Amount paid.
F. P. Spaulding.....	21	*\$150.00	\$119.23
W. P. Richardson.....	101	*150.00	588.89
M. C. Hazen.....	70	*70.00	185.97
T. J. Fisher.....	128	*100.00	492.60
William J. Boyd.....	205	*50.00	392.50
A. S. Fernald.....	37	*50.00	69.88
Thomas Sweeney.....	206	*45.00	355.01
Jesse Ramsburgh.....	205	†1.50	307.00
	25	*75.00	75.00
Total.....			2,586.17

## FREE BATHING BEACH.

Joseph Sembly.....	3	1.50	4.50
--------------------	---	------	------

\* Per month. † Per diem.



## SUMMARY.

Work on streets and avenues .....	\$12,695.53
Constructing county roads .....	3,743.25
Curbing and paving roadways .....	520.95
Permit work .....	2,095.15
Repairs to concrete pavement .....	357.00
Grading streets .....	137.00
Subdivision of lands .....	2,586.17
Free bathing beach .....	4.50
<b>Total .....</b>	<b>22,139.55</b>

## CHARACTER AND EXTENT OF STREET PAVEMENTS.

*Statement of character and extent of street pavements, July 1, 1892.*

Year.	Asphalt.	Concrete and coal tar.	Granite.	Cobble.	Mac- adam.	Asphalt block.	Unim- proved.
	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>	<i>Sq. yds.</i>
Northwest .....	1,117,417	488,741	195,066	145,656	89,283	37,311	318,389
Southwest .....	87,461	32,251	221,003	89,424	34,255	11,609	218,482
Southeast .....	94,637	3,154	42,186	51,066	115,027	104,035	526,587
Northeast .....	129,035	15,894	15,000	4,009	37,729	109,621	617,070
Georgetown .....	71,690	29,179	70,902	28,876	11,623	7,883	60,528
<b>Total .....</b>	<b>1,500,240</b>	<b>564,219</b>	<b>544,157</b>	<b>319,031</b>	<b>287,917</b>	<b>270,459</b>	<b>1,741,056</b>

## RECAPITULATION.

Asphalt .....	<i>Sq. yards.</i> 1,500,240
Concrete and coal tar .....	564,219
Granite .....	544,157
Cobble .....	319,032
Macadam .....	287,917
Asphalt block .....	270,459
Unimproved .....	3,486,024
<b>Total .....</b>	<b>1,741,056</b>
<b>Total .....</b>	<b>5,227,081</b>

## SUBURBAN.

Asphalt .....	<i>Sq. yards</i> 73,025
Granite .....	23,241
Asphalt block .....	966
<b>Total .....</b>	<b>97,232</b>

## Statement of character and abstract of street pavements, July 1, 1892—Continued.

## NORTHWEST.

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	Year paved.	Year resurfaced.	
North Capitol street, from B (west half) to C.....	50	Sq. yds. 1,395					Sq. yds.	Sq. yds.	1883		Asphalt.
North Capitol street, from C (west half) to E.....	50				2,271						Cobble.
North Capitol street, from E (west half) to Massachusetts avenue.....	50		1,920						1889		Coal tar.
North Capitol street, from Massachusetts avenue (west half) to I street.....	50	3,728							1887		Asphalt.
North Capitol street, from I (west half) to K.....	50	1,443							1889		Do.
North Capitol street, from K (west half) to M.....	50	3,103							1892		Do.
North Capitol street, from M (west half) to Florida avenue.....								5,207			Asphalt block.
Arthur street, from New Jersey avenue and First street to B and C.....							1,366		1886		
First street, from center Botanical Garden to Pennsylvania avenue.....	53	2,270							1873		Asphalt.
First street, from Pennsylvania avenue to F street.....	56 } 40 }			7,215		*527	590		{ 1892 } { 1879 }		Granite.
First street, from F to H.....	32			1,427					1882		Do.
First street, from H to Defrees.....	32		700						1877		Coal tar.
First street, from Defrees to I.....	32			535					1882		Granite.
First street, from I to K.....	32	1,191							1890		Asphalt.
First street, from K to Florida avenue.....								12,000			
Second street, from Pennsylvania avenue to Indiana avenue.....	40			3,693					1881		Granite.
Second street, from Indiana avenue to I street.....	40	10,452							1891		Asphalt.
Kirby street, from First and Third to M and N.....	32							1,760			
Third street, from center Botanical Garden to Pennsylvania avenue.....	40			2,764					1881		Granite.
Third street, from Pennsylvania avenue to D street.....	32			4,231					1880		Do.
Third street, intersection of D.....		436							1880		Asphalt.
Third street, from Indiana avenue to L street.....	40	16,359							1875	{ 1883 } { 1884 }	Coal tar.
Third street, from L to New York avenue.....	40	2,685							1879		Asphalt.
Third street, from M to Florida avenue.....	40							8,445			

\*Vitrified brick.

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHWEST—Continued.

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt. Sq. yds.	Coal tar and concrete. Sq. yds.	Granite. Sq. yds.	Cobble and blue rock. Sq. yds.	Macadam. Sq. yds.	Asphalt block. Sq. yds.	Unimproved. Sq. yds.	Year paved.	Year resurfaced.	
Fourth street, from Indiana avenue to New York avenue.....	32	3,573	10,719						1872	{ 1878 } 1889 } 1891 }	Coal tar.
Fourth street, from New York avenue to M street.....	32				647				1873		Granite.
Fourth street, from M to New Jersey avenue.....	32			2,401					1891		Asphalt.
Fourth street, from New Jersey avenue to Florida avenue.....	32	4,594							1891		Coal tar.
Four-and-a-half street, from center of Mall to Pennsylvania avenue.....	55		1,143						1886		
Four-and-a-half street, from Pennsylvania avenue to D street..	50						4,540		1889		Asphalt block.
Fifth street, from D to G.....	46	3,341							1885		Asphalt.
Fifth street, from G to New York avenue.....	32		7,389						1873	{ 1878 } 1887 }	Coal tar.
Fifth street, from New York avenue to O street .....	32	5,666							1879		Asphalt.
Fifth street, from O to Q.....	32	3,123							1889		Do.
Fifth street, from Q to Florida avenue.....	32	4,436							1889		Do.
Sixth street, from center of Mall to Missouri avenue.....	60				3,333						
Sixth street, from Missouri avenue to Louisiana avenue.....	60	5,078							1885		Asphalt.
Sixth street, from Louisiana avenue to E street.....	32	791	2,196						1877	1882	Coal tar.
Sixth street, from E to F.....	32	1,313							1878	1889	Asphalt.
Sixth street, from F to G.....	32			975					1880		Granite.
Sixth street, from G to New York avenue .....	{ 32 } 35 }		6,896						1887		Coal tar.
Sixth street, from New York avenue to Florida avenue.....	35	16,636							1880		Asphalt.
Madison street, from Sixth and Seventh to M and N.....	25	1,538							1889		Do.
Marion street, from Sixth and Seventh to P and Q.....	26	2,861							1889		
Wiltberger street, from Sixth and Seventh to S and T.....	20							1,730			
Seventh street, from center of Mall to Pennsylvania avenue .....	51			4,328					1878		Coal tar.
Seventh street, from Pennsylvania avenue to D street.....	51	1,579					3,214		1875	1881	Asphalt.
Seventh street, intersection of Louisiana avenue .....	51			18,465					1879		Granite.
Seventh street, from D to Q.....	51								{ 1882 } 1889 }		Granite (west side).
Seventh street, from Q to Florida avenue.....	51			4,340					{ 1882 } 1889 }		Granite (east side).
Seventh street, from Q to Florida avenue.....	51			3,406					1889		



Seventh street, intersection of K, H, and I	30			5,597			1877	Granite.
Eighth street, from Pennsylvania avenue to E street	30	1,964		3,653			1881	Do.
Eighth street, from E to F	30	4,888					1877	Coal tar.
Eighth street, from G to L	30	3,610					1883	Asphalt.
Eighth street, from L to N	30	6,493					1875	Coal tar.
Eighth street, from N to R	30						1883	Asphalt.
Eighth street, from R to S	30		2,063				1887	Coal tar.
Eighth street, from S to Florida avenue	30		3,624				1888	Do.
Ninth street, from B to Pennsylvania avenue	51			2,260			1879	Granite.
Ninth street, from Pennsylvania avenue to P street	51	28,113	4,250				1872	Coal tar.
Ninth street, from P to Rhode Island avenue	51	1,583					1883	Asphalt (east side).
Ninth street, from Rhode Island avenue to Florida avenue	51	3,371					1884	Do.
Ninth street, from P to Florida avenue	51	6,147					1879	Asphalt (west side).
Columbia street, between Ninth and Tenth, Q and O			2,683				1873	Coal tar.
Opera Square, between Ninth and Tenth, Pa. ave. and La. ave			784				1872	Granite.
Tenth street, from B to Pennsylvania avenue	51		3,103				1885	Do.
Tenth street, from Pennsylvania avenue to E street	32	1,353					1879	Asphalt.
Tenth street, from E to F	32		1,373				1880	Granite.
Tenth street, from F to G	32	955					1887	Asphalt.
Tenth street, from G to K	32	4,828					1875	Coal tar.
Tenth street, from K to M	32	3,368					1880	Asphalt.
Tenth street, from M to O	32	3,443					1881	Do.
Tenth street, from O to R	32	4,433					1883	Do.
Tenth street, from R to S	32		1,992				1887	Coal tar.
Tenth street, from S to T	32	1,948					1891	Asphalt.
Tenth street, from T to Florida avenue	32					6,496		
Eleventh street, from B to Pennsylvania avenue	55						1872	Do.
Eleventh street, from Pennsylvania avenue to E street	55	2,500			3,145		1878	Granite.
Eleventh street, from E to F	55			1,734			1879	Do.
Eleventh street, from F to G	55			1,214			1880	Coal tar.
Eleventh street, from G to K	55		3,866				1875	Granite.
Eleventh street, from K to O	35			4,326			1880	Asphalt.
Eleventh street, from O to Florida avenue	35	8,734					1891	Granite.
Twelfth street, from center of Mall to B street	32			3,735			1873	Do.
Twelfth street, from B to Pennsylvania avenue	40			3,900			1872	Asphalt.
Twelfth street, from Pennsylvania avenue to E street	38	1,292					1878	Granite.
Twelfth street, from E to F	38			1,629			1879	Coal tar.
Twelfth street, from F to N	32	1,200	11,839				1875	Asphalt.
Twelfth street, intersection of G	32	198					1881	Do.
Twelfth street, from N to O	32	1,522					1881	Do.
Twelfth street, from O to Rhode Island avenue	32	1,859					1887	Coal tar.
Twelfth street, from Rhode Island avenue to Vermont avenue	32		2,304				1888	Asphalt.
Twelfth street, from Vermont avenue to S street	32	1,798					1890	Do.
Twelfth street, from S to V	32	5,377					1891	Asphalt block.
Twelfth street, from V to Florida avenue	32	3,554					1886	
Cleveland street, from Twelfth W. and Florida avenue to Thirteenth street.	25					1,297		

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHWEST—Continued.

Locality.	Carriageway.								Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	
		Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	
Thirteenth street, from B street N. to C.....	40	1,760							Asphalt.
Thirteenth street, from C to Pennsylvania avenue.....	40	3,037							Do.
Thirteenth street, from Pennsylvania avenue to E street.....	40		676						Coal tar.
Thirteenth street, from E to F.....	40			1,741					Granite.
Thirteenth street, from F to P.....	{ 40 } { 32 }		15,862						Coal tar.
Thirteenth street, from P to Corcoran.....	40	2,126							Asphalt.
Thirteenth street, around Iowa Circle.....	40	8,838							Coal tar.
Thirteenth street, from Corcoran to T.....	40	4,273							Asphalt.
Thirteenth street, from T to Florida avenue.....	40	7,271							Do.
Thirteenth street, from intersection of N.....	40	613							Do.
Thirteenth street, from intersection of B.....	40	775							Do.
Kingman place, from Thirteenth and Fourteenth streets to P and Q.....	30	1,699							Do.
Thirteenth-and-a-half street, from B street N. to Pennsylvania avenue.....	35				5,095				
Fourteenth street, from center of Mall to B street N.....	32			3,920					Granite.
Fourteenth street, from B street N. to Pennsylvania avenue.....	70		8,852						Coal tar.
Fourteenth street, from Pennsylvania avenue N. to F street.....	70			1,734					Granite.
Fourteenth street, from F to New York avenue.....	70	3,732							Coal tar.
Fourteenth street, from New York avenue to H street.....	70	1,549							Coal tar, east side.
Fourteenth street, from H to Florida avenue.....	70	29,086							Asphalt, east side.
Fourteenth street, from H to M.....	70	5,682							Asphalt, west side.
Fourteenth street, from M to Florida avenue.....	70	14,583							Do.
Johnson street, from Fourteenth to Fifteenth.....	30	1,446							Asphalt.
Portner street, from Fourteenth to Fifteenth and U to V.....	25							1,000	
Fifteenth street, from B street N. to Pennsylvania avenue.....	43						7,012		Asphalt block.
Fifteenth street, from Pennsylvania avenue to New York avenue.....	70	4,938							Coal tar.
Fifteenth street, from New York avenue to Vermont avenue.....	{ 40 } { 50 }	7,005							Do.
Fifteenth street, from I to K.....	40	1,724							Do.

Fifteenth street, from K to Rhode Island avenue.....	32	6, 921	4, 220			1881	Asphalt.
Fifteenth street, from Rhode Island avenue to S street.....	32	3, 296				1875	Coal tar.
Fifteenth street, from S to U.....	32	3, 768				1885	Asphalt.
Executive avenue, south and west to Treasury Department.....	32	5, 601			2, 806	1889	Do.
Fifteen-and-a-half street, from Pennsylvania avenue to H street.....	40	2, 974				1872	Coal tar.
Sixteenth street, from H to Scott Circle.....	50	12, 450				1881	Asphalt.
Sixteenth street, from Scott Circle to R street.....	50	10, 818				1882	Do.
Sixteenth street, from R to Florida avenue.....	50	13, 391				1883	Do.
Sixteen-and-a-half street, from Pennsylvania avenue to H street.....	40	2, 315				1872	Coal tar.
Seventeenth street, from B street N. to New York avenue.....	50		9, 285			1872	Do.
Seventeenth street, from New York avenue to I street.....	50	4, 847	4, 758			1873	Do.
Seventeenth street, from I to Massachusetts avenue.....	{ 50 } { 32 }		10, 603			1873	Do.
Seventeenth street, from Massachusetts avenue to P street.....	32		2, 095			1875	Do.
Seventeenth street, from P to Q.....	32		1, 765			1887	Do.
Seventeenth street, from Q to R.....	32		1, 874			1889	Do.
Seventeenth street, from R to T.....	32	2, 946				1889	Asphalt.
Seventeenth street, from T to Florida avenue.....	32				4, 076		
Eighteenth street, from river to D street.....	32				2, 473		
Eighteenth street, from D to E.....	32	1, 544				1892	Do.
Eighteenth street, from E to New York avenue.....	32		1, 096			1873	Coal tar.
Eighteenth street, from New York avenue to Pennsylvania avenue.....	32	4, 895				1881	Asphalt.
Eighteenth street, from Pennsylvania avenue to K street.....	32	4, 515				1872	Coal tar.
Eighteenth street, from K to L.....	32				1, 431	1886	Asphalt block.
Eighteenth street, from intersection of G street.....	32	263				1879	Asphalt.
Eighteenth street, from L to P.....	32	2, 402	5, 182			1873	Coal tar.
Eighteenth street, from P to Q.....	32		1, 764			1887	Do.
Eighteenth street, from Q to S.....	32	3, 130				1891	Asphalt.
Eighteenth street, from S to Florida avenue.....	32						
Nineteenth street, from river to E street.....	32				3, 649		
Nineteenth street, from E to New York avenue.....	32			1, 028	3, 644		
Nineteenth street, from E to Pennsylvania avenue.....	32		6, 421			1873	Coal tar.
Nineteenth street, from Pennsylvania avenue to K street.....	32			3, 170		1880	Granite.
Nineteenth street, from K to M.....	32			3, 726		1885	Do.
Nineteenth street, from M to N.....	32			1, 894		1882	Do.
Nineteenth street, from N to Dupont Circle.....	32	2, 409				1881	Asphalt.
Nineteenth street, from Dupont Circle to Florida avenue.....	32	2, 048	5, 550			1873	Coal tar.
Twentieth street, from river to E street.....	32				3, 652		
Twentieth street, from E to Pennsylvania avenue.....	32		5, 579			1873	Do.
Twentieth street, from Pennsylvania avenue to I street.....	32	981				1879	Asphalt.
Twentieth street, from I to K.....	32			1, 350		1879	Granite.
Twentieth street, from K to P.....	32	2, 995	5, 212			1873	Coal tar.
Twentieth street, from P to Connecticut avenue.....	32		2, 167			1873	Do.
Twentieth street, from R to S.....	32	1, 995				1889	Asphalt.
Twentieth street, from S to Florida avenue.....	32					1872	
Hopkins street, from Twentieth (O to P) to Twenty-first.....	32		900		960		





[illegible]

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHWEST—Continued.

Locality.	Carriageway.								Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	
		Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	
G street, from Seventh to Ninth .....	40	2,514							Coal tar.
G street, from Ninth to Fifteenth .....	40	6,576	6,008						Do.
G street, from Seventeenth to Twenty-second .....	36		10,276						Do.
G street, from Twenty-second to Twenty-seventh .....	36			9,511					Granite.
Washington street, from G and H, Fourth to Fifth .....	35	2,128							Asphalt.
Grant place, from G and H, Ninth to Tenth .....	24	1,435							Do.
H street, from North Capitol to Fourth .....	56	784		8,337					Granite.
H street, from Fourth to Seventh .....	35		6,381						Coal tar.
H street, from Seventh to Thirteenth .....	35	9,067							Do.
H street, from Thirteenth to Fourteenth .....	40	2,144							Do.
H street, from Fourteenth to Fifteenth .....	56	1,735							Asphalt.
H street, from Fifteenth to Vermont avenue .....	56	1,729							Coal tar.
H street, from Vermont avenue to Connecticut avenue .....	50		2,889						Asphalt block.
H street, from Connecticut avenue to Nineteenth street .....	50	5,451							Asphalt.
H street, from Eighteenth to Twenty-second .....	32	6,493							Coal tar.
H street, from Twenty-second to Twenty-sixth .....	36				4,150			1,066	
H street, from Twenty-sixth to Twenty-seventh .....	32								
Defrees street, from North Capitol to First, H to I .....	22						1,967		Asphalt block.
I street, from North Capitol to New Jersey avenue .....	35		4,557						Coal tar.
I street, from New Jersey avenue to Fifth street .....	35	5,804							Asphalt.
I street, from Fifth to Eighth .....	32	4,210							Do.
I street, from Eighth to Ninth .....	32	759							Do.
I street, from Ninth to Tenth .....	32	2,090							Do.
I street, from Tenth to Eleventh .....	32	714							Do.
I street, from Eleventh to Thirteenth .....	40	3,700							Coal tar.
I street, from Thirteenth to Fifteenth .....	40	4,632							Asphalt.
I street, from Fifteenth to Seventeenth .....	48	8,322							Coal tar.
I street, from Seventeenth to Eighteenth .....	40	2,672							Asphalt.
I street, from Pennsylvania avenue to Twenty-third street .....	38	6,296							Do.
I street, from Eighteenth to Twenty-seventh .....	40					7,536			Macadamized.
I street, from Eighteenth to Pennsylvania avenue .....	40	5,327							Asphalt.



Street	50	8, 225	8, 384	8, 822	1874	1878 } 1889 } 1881 } 1886 } 1885 }
K street, from North Capitol to Third.	50		8, 384		1874	{ 1878 } { 1889 } Coal tar.
K street, from Third to Seventh.	50				1874	{ 1881 } Do.
K street, from Seventh to Ninth.	{ 53 } { 30 }	8, 215	1, 100		1873	{ 1886 } { 1885 } Do.
K street, from Ninth to Eighteenth.	50		27, 551		1875	Do.
K street, from intersection to Vermont avenue.		715			1875	Do.
K street, from Eighteenth to Twenty-third.	50	11, 671		619	1880	Granite block, asphalt at Market.
L street, from Twenty-third to Twenty-eighth.	32	4, 643		12, 571	1874	Granite.
L street, from North Capitol to New Jersey avenue.	32				1890	Asphalt.
L street, from New Jersey avenue to Fourth street.	32		1, 592		1877	Coal tar.
L street, from Fourth to Fifth.	32			2, 665	1877	Granite.
L street, from Fifth to Sixth.	32					
L street, from Eighth to Seventeenth.	32	21, 203	1, 085		1877	Coal tar.
L street, from Connecticut avenue to Twentieth street.	32					
L street, from Sixth to Eighth.	32	2, 645			1883	Asphalt.
L street, from Seventeenth to Connecticut avenue.	32		1, 628		1873	Coal tar.
L street, from Twentieth to Twenty-fifth.	32	8, 141			1883	Asphalt.
L street, from Twenty-fifth to Twenty-sixth.	32	483			1889	Do.
L street, from Twenty-sixth to Twenty-eighth.	32	1, 175			1889	Do.
DeSales street, from L to M to Seventeenth to Connecticut avenue.	32		2, 493		1875	Coal tar.
Pierce street, from L to M to First to New Jersey avenue.	40	5, 535			1889	Asphalt.
M street, from North Capitol to First.	35			1, 669		
M street, from First to New Jersey avenue.	35	2, 597			1890	Do.
M street, from New Jersey avenue to Sixth street.	35	5, 564			1880	Do.
M street, from Sixth to Fourteenth.	35	13, 147			1879	Do.
M street, from Fourteenth to Sixteenth.	40	4, 573			1881	Do.
M street, from Sixteenth to Eighteenth.	40		5, 851		1873	Coal tar.
M street, from Eighteenth to New Hampshire avenue.	40	6, 084			1879	Asphalt.
M street, from New Hampshire avenue to Rock Creek.	40	9, 171			1882	Do.
Jefferson street, from M to N to Eighteenth to Nineteenth.	27			1, 393	1884	Asphalt block.
Ridge street, from M to N to Fourth to Fifth.	30	2, 518			1889	Asphalt.
Ward Place, from New Hampshire avenue and Twenty-second street to M to N.	{ 50 } { 25 }					
N street, from North Capitol to New Jersey avenue.	32					
N street, from New Jersey avenue to Fifth street.	32	3, 311			1890	Do.
N street, from Fifth to Ninth.	32	4, 454			1883	Do.
N street, from Ninth to Fourteenth.	32	6, 802			1880	Do.
N street, from Fourteenth to Sixteenth.	32	3, 249			1881	Do.
N street, from Sixteenth to New Hampshire avenue.	32		6, 556		1873	Coal tar.
N street, from New Hampshire avenue to Twenty-first street.	32		517		1875	Do.
N street, from Twenty-first to Twenty-second.	32			1, 930		Macadam.
N street, from Twenty-second to Twenty-fourth.	32	2, 196			1892	Asphalt.
N street, from Twenty-fourth to Rock Creek.	32				1885	Asphalt block.
Sunderland Place, from N to O to Nineteenth and Twentieth streets.	30					
Morgan street, from M to N to First and Third.	30	1, 134			1892	Asphalt.
O street, from North Capitol to New Jersey avenue.	32					
O street, from New Jersey avenue to Thirteenth street.	32	4, 756	8, 905	1, 245	1875	Coal tar.

*Statement of character and extent of street pavements, July 1, 1892—Continued.*

**NORTHWEST—Continued.**

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt. Sq. yds.	Coal tar and concrete. Sq. yds.	Granite. Sq. yds.	Cobble and blue rock. Sq. yds.	Macadam. Sq. yds.	Asphalt block. Sq. yds.	Unimproved. Sq. yds.	Year paved.	Year resurfaced.	
O street, from Thirteenth to Vermont avenue.....	32	481							1883		Asphalt.
O street, from Fifteenth to Sixteenth.....	32		1,663						1875		Coal tar.
O street, from Sixteenth to Seventeenth.....	32	1,697							1883		Asphalt.
O street, from Twentieth to Twenty-first.....	32		2,011						1887		Coal tar.
O street, from Twenty-first to Rock Creek.....	32	2,398					693		1889		Asphalt. Twenty-second to Rock Creek unimproved.
P street, from North Capitol to Fourth.....	32	7,135							1891		Asphalt.
P street, from Fourth to Ninth.....	32	5,166							1884		Do.
P street, from Ninth to Fifteenth.....	32	8,156							1884		Do.
P street, from Fifteenth to Eighteenth.....	32	8,076							1884		Do.
P street, from Eighteenth to Twentieth.....	32		1,569						1873	1878	Coal tar.
P street, from Twentieth to Twenty-second.....	40			3,481					1879	{ 1887 } { 1881 }	Granite.
P street, from Twenty-second to Rock Creek.....	40	1,079							1872		Coal tar.
Madison street, from P (Seventeenth and Eighteenth) to Q.....	25							2,236			Asphalt.
Sampson street, from P and Q to Fourteenth and Fifteenth.....	24	1,733							1890		
Franklin street, from P and Q to New Jersey avenue and Fifth street.	30							1,667			
Bates street, from P and Q to North Capitol and First.....	25							1,800			Coal tar.
Madison street, from P and Q to Fifteenth and Seventeenth.....	25		2,674						1875		
Q street, from Florida avenue to Third street.....	32										Asphalt.
Q street, from Third to New Jersey avenue.....	32	1,812							1890		Do.
Q street, from New Jersey avenue to Fifth street.....	32	2,031							1888		Do.
Q street, from Fifth to Sixth.....	32	833							1887		Coal tar.
Q street, from Sixth to Rhode Island avenue.....	32		4,759						1889		Do.
Q street, from Rhode Island avenue to Vermont avenue.....	32		2,453						1883		Asphalt.
Q street, from Vermont avenue to Fourteenth street.....	32	2,806								{ 1886 } { 1891 }	Coal tar.
Q street, from Fourteenth to Sixteenth.....	32	2,338	2,468						1874	1889	Do.
Q street, from Sixteenth to Seventeenth.....	32		2,301						1875		Asphalt.
Q street, from Seventeenth to Nineteenth.....	32	4,904							1888		Coal tar.
Q street, from Nineteenth to Twentieth.....	32		862						1873	{ 1878 } { 1882 }	Do.
Q street, from Twentieth to Twenty-second.....	32		2,541						1886		

Q street, from Twenty-first to Massachusetts avenue. Hillyer street, from Q and R to Twentieth and Twenty-first. Warner street, from New Jersey avenue and Fifth street to Q and R.	32 27 25	883	1,552	1,333	1875 1884	Do. Asphalt block.
Corcoran street, from Thirteenth and Fourteenth to Q and R Corcoran street, from Fourteenth and Fifteenth to Q and R. Corcoran street, from Fifteenth and New Hampshire avenue to Q and R street.	30 30 30	2,067 2,129 4,851			1877 1875 1888	Coal tar. Do. Asphalt.
Corcoran street, from Eighteenth and Nineteenth to Q and R R street, from Florida avenue to Seventh street. R street, from Seventh to Ninth R street, from Ninth to Fourteenth R street, from Fourteenth to Sixteenth R street, from Sixteenth to New Hampshire avenue R street, from New Hampshire avenue to Twentieth street. R street, from Twentieth to Twenty-first. R street, from Twenty-first to Florida avenue. Riggs street, from R and S to Eighteenth and Nineteenth. Riggs street, from R and S to Sixteenth and Seventeenth. Riggs street, from R and S to Thirteenth and Fourteenth. French street, from R and S to Ninth and Tenth. Riggs street, from R and S to New Hampshire avenue and Eighth street.	30 32 32 32 32 32 32 32 32 30 30 30 32 32 32 32 32 32 32 30 30 25	1,163 7,551 7,638 4,502 3,918 3,498 1,411 1,620 1,692		611 1,300 2,030 1,180	1890 1890 1888 1884 1875 1890 1891 1887 1891 1886 1889	Do. Do. Coal tar. Asphalt. Coal tar. Asphalt. Do. Coal tar. Asphalt. Asphalt block. Asphalt block. Asphalt.
S street, from Florida avenue to Seventh street. S street, from Seventh to Eleventh. S street, from Eleventh to Fourteenth S street, from Fourteenth to Sixteenth S street, from Sixteenth to New Hampshire avenue. S street, from New Hampshire avenue to Twentieth street. S street, from Twentieth to Connecticut avenue. Oregon street, from S and T to New Hampshire avenue and Nineteenth street. Pierce street, from S and T to Fourteenth and Fifteenth. Pierce street, from S and T to Fifteenth and Sixteenth Pierce street, from S and T to Sixteenth and Seventeenth. Westminster street, from S and T to Ninth and Tenth. T street, from Florida avenue to Ninth street. T street, from Ninth to Tenth T street, from Tenth to Florida avenue. Willard street, from T and U to Seventeenth and Eighteenth. Caroline street, from T and U to Fifteenth and Sixteenth. Wallach street, from T and U to Thirteenth and Fourteenth U street, from Ninth to Tenth U street, from Tenth to Fourteenth. U street, from Fourteenth to Sixteenth U street, from Sixteenth to Florida avenue. Seaton street, from U and V to Seventeenth and Eighteenth V street, from Vermont avenue to Florida avenue W street, from Florida avenue to Florida avenue	32 32 32 32 32 32 32 32 30 30 30 30 32 32 32 25 24 30 32 32 32 32 30 30 30 30 50	5,047 4,240 1,757 2,681 1,077 2,154		3,059 5,491 2,457 5,281 2,433 1,716 1,320 1,730 2,667 14,707 2,360 2,075 4,906 4,491 1,822 13,325 6,691 26,265	1889 1875 1873 1889 1889 1873 1886 1876 1891 1886 1891 189	



## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHWEST—Continued.

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	Year paved.	Year resurfaced.	
Florida avenue, from Massachusetts avenue to Ninth street . . . . .	46	Sq. yds. . . . .	Sq. yds. . . . .	Sq. yds. . . . .	Sq. yds. . . . .	Sq. yds. . . . .	Sq. yds. . . . .	Sq. yds. . . . .	{ 1875 } 1876	.....	Macadam.
Florida avenue, from Ninth street to Seventh . . . . .	45	.....	.....	2,304	.....	.....	.....	.....	1874	.....	Granite.
Florida avenue, from Seventh street to New Jersey avenue . . . . .	46	7,208	.....	.....	.....	.....	.....	.....	1888	.....	Asphalt.
Florida avenue, from New Jersey avenue to Fourth street . . . . .	46	3,405	.....	.....	.....	.....	.....	.....	1890	.....	Do.
Florida avenue, from Fourth to First . . . . .	46	.....	.....	.....	.....	6,563	.....	.....	.....	.....	Macadam.
Florida avenue, from First street to North Capitol . . . . .	.....	.....	.....	.....	.....	.....	.....	4,907	.....	.....	.....
Indiana avenue, from First street to Third . . . . .	35	8,530	.....	.....	.....	.....	.....	.....	1887	.....	Asphalt.
Louisiana avenue, from Third street to Seventh . . . . .	60	4,054	.....	9,243	.....	.....	.....	.....	1881	.....	Asphalt and granite.
Louisiana avenue, from Eighth street to Ninth . . . . .	.....	.....	.....	1,137	.....	.....	.....	.....	1879	.....	.....
Louisiana avenue, from intersection to Seventh street and C . . . . .	.....	.....	.....	.....	.....	.....	3,214	.....	1880	.....	Asphalt block.
Louisiana avenue, from Ninth street to Tenth . . . . .	78½	.....	.....	4,765	.....	.....	.....	.....	1872	.....	Granite.
Massachusetts avenue, from North Capitol street to New Jersey avenue . . . . .	50	.....	5,143	.....	.....	.....	.....	.....	1887	.....	Coal tar.
Massachusetts avenue, from New Jersey avenue to Third street . . . . .	50	3,858	.....	.....	.....	.....	.....	.....	1882	1891	Asphalt.
Massachusetts avenue, from Third street to Seventh . . . . .	50	3,121	785	.....	.....	.....	.....	.....	1881	1889	Asphalt (south side), coal tar (north side).
Massachusetts avenue, from Fourth street to Seventh . . . . .	50	3,108	.....	.....	.....	.....	.....	.....	1883	.....	Asphalt.
Massachusetts avenue, from Ninth street to Thirteenth . . . . .	50	9,920	.....	.....	.....	.....	.....	.....	1880	.....	Do.
Massachusetts avenue, from Thirteenth street to Fourteenth . . . . .	50	2,991	.....	.....	.....	.....	.....	.....	1877	1884	Coal tar.
Massachusetts avenue, around Thomas Circle . . . . .	50	6,000	.....	.....	.....	.....	.....	.....	1877	.....	Asphalt.
Massachusetts avenue, from Fourteenth street to Twentieth . . . . .	50	3,079	10,819	.....	.....	.....	.....	.....	1873	1878	Coal tar.
Massachusetts avenue, around Scott Square . . . . .	.....	.....	12,560	.....	.....	.....	.....	.....	1877	.....	Do.
Massachusetts avenue, from Twentieth street to Florida avenue . . . . .	50	.....	5,817	.....	.....	.....	.....	.....	1875	.....	Do.
Massachusetts avenue, intersection of Fourth street . . . . .	50	.....	742	.....	.....	.....	.....	.....	1877	.....	Do.
Massachusetts avenue, intersection of Fifth street . . . . .	50	.....	498	.....	.....	.....	.....	.....	1877	.....	Do.
Highland Terrace, from Fourteenth street to Fifteenth . . . . .	.....	.....	1,248	.....	.....	.....	.....	.....	1873	.....	Do.
Missouri avenue, from Third street to Four-and-a-half . . . . .	50	.....	.....	2,562	.....	.....	.....	.....	.....	.....	Granite.
Missouri avenue, from Four-and-a-half to Sixth street . . . . .	50	.....	.....	.....	2,452	.....	.....	.....	1872	.....	Cobble.
New Hampshire avenue, from Twenty-seventh to G street . . . . .	50	.....	.....	.....	5,000	.....	.....	.....	.....	.....	.....
New Hampshire avenue, from G street to Pennsylvania avenue . . . . .	50	.....	.....	.....	7,967	.....	.....	.....	.....	.....	.....
New Hampshire avenue, from Pennsylvania avenue to M street . . . . .	50	6,992	.....	.....	.....	.....	.....	.....	1879	.....	Asphalt.
New Hampshire avenue, from M to P street . . . . .	50	10,047	.....	.....	.....	.....	.....	.....	1882	.....	Do.
New Hampshire avenue, from P to Q street . . . . .	50	2,538	.....	.....	.....	.....	.....	.....	1885	.....	Do.

New Hampshire avenue, from Q to R street.	50	4, 164				1888	Do.
New Hampshire avenue, from R to T street.	50	8, 809				1889	Do.
New Hampshire avenue, from T to V street.	50	6, 805				1890	Do.
New Hampshire avenue, from V street to Florida avenue.	50				2, 688		
New Jersey avenue, around Dupont Circle.							
New Jersey avenue, from B to C street.	50	1, 635	2, 446			1873	Coal tar.
New Jersey avenue, from C to D street.	50		1, 235			1877	Do.
Do.	50		2, 385			1883	Coal tar, west side.
New Jersey avenue, from D to L street.	50			1, 177		1877	Granite, east side.
New Jersey avenue, from L street to New York avenue.	50	21, 463				1882	Asphalt.
New Jersey avenue, from New York to Florida avenue.	50	3, 669				1884	Do.
New York avenue, from North Capitol street to New Jersey avenue.	50	5, 604	18, 127			1887	Coal tar.
New York avenue, from New Jersey avenue to Seventh street.	50	9, 229				1890	Asphalt.
						1889	Do.
New York avenue, from Ninth to Fifteenth street.	50	6, 969	15, 348			1872	Coal tar.
						1878 } 1875 } 1887 } 1885 }	
New York avenue, from Fourteenth to Fifteenth street.	86		1, 863			1872	Coal tar (north side).
New York avenue, from Thirteenth to Fourteenth street.	50	2, 170				1891	Coal tar (parking).
New York avenue, from Seventeenth to Eighteenth street.	50		3, 509			1873	Asphalt.
New York avenue, from Eighteenth to Nineteenth street.	50						See E street.
New York avenue, from Nineteenth to Twenty-third street.	50				11, 388		
Ohio avenue, from B to Fifteenth street.	60			11, 355		1872 } 1874 }	Cobble.
Pennsylvania avenue, from First to Sixth street.	108½	25, 322				1877	Asphalt.
Pennsylvania avenue, from Sixth to Fifteenth street.	108½	53, 199				1876 } 1877 }	Do.
						1878 } 1880 } 1888 }	Coal tar.
Pennsylvania avenue, from Fifteenth to Eighteenth street.	85	17, 017				1875	Coal tar (north and south side).
Pennsylvania avenue, from Eighteenth to Twenty-third street.	80		10, 078				Coal tar.
Do.						1875	Coal tar.
Pennsylvania avenue, from Twenty-third street to Rock Creek.	80	3, 909	11, 398			1877	Do.
Pennsylvania avenue, around Washington Circle.	80	7, 830	4, 923			1880	Asphalt.
Rhode Island avenue, from Connecticut avenue to Scott Circle.	50	6, 083	5, 411			1873	Coal tar.
Rhode Island avenue, from Scott Circle to Thirteenth street.	50	7, 723				1873	Do.
Rhode Island avenue, from Thirteenth to Ninth street.		9, 219				1882	Asphalt.
Rhode Island avenue, from Ninth to Fifth street.		8, 120				1883	Do.
Rhode Island avenue, from Fifth street to New Jersey avenue.	50	2, 313				1888	Do.
Rhode Island avenue, from New Jersey avenue to Florida avenue.	50						
Virginia avenue, from B street to Rock Creek.	50				2, 313		
Vermont avenue, from H to I street.	50	4, 156			30, 277		
Vermont avenue, from K to M street.	50	6, 537				1872	Coal tar.
Vermont avenue, from M to P street.	50	6, 150				1872	Do.
Vermont avenue, from P to R street.	50	6, 103	190			1873	Intersection of U (coal tar).
Vermont avenue, from R to T street.	50					1881	
Vermont avenue, from T street to Florida avenue.	50		4, 853				
					6, 424		





Eleventh street, from B to river	40	10,511				Granite.	1873
Twelfth street, from B to river	40	8,444				Do.	1872
Thirteenth street, from center of Mall to B street	40	3,735				Do.	1873
Thirteenth street, from B to Maryland avenue	40					Asphalt.	1876
Thirteen-and-a-half street, from B to river	32				4,291		1875
Fourteenth street, from center of Mall to B street	40	3,920				Granite.	{ 1872 } { 1873 }
Fourteenth street, from B to Maryland avenue	40				6,764		
Fifteenth street, from B to river	32						
B street, from South Capitol to First	35						3,625
B street, from First street to Maryland avenue	35						
B street, from Sixth to Fourteenth	32						
B street, from Fourteenth to Fifteenth							
C street, from South Capitol to First	32						
C street, from First to Four-and-a-half	35						
C street, from First to Sixth	35						
C street, from Four-and-a-half to Sixth	35						
C street, from Sixth to Seventh	35						
C street, from Ninth to Twelfth	35						
C street, from Twelfth to Fourteenth	35						
C street, from Fourteenth to Fifteenth	35						
D street, from South Capitol to First	35						
D street, from First to Third	35						
D street, from Third to Four-and-a-half	35						
D street, from Four-and-a-half to Fourteenth	35						
D street, from Fourteenth to Fifteenth	35						
School, from D and E streets to Four-and-a-half and Sixth	34						
E street, from South Capitol to First	35						
E street, from Virginia avenue to Third	35						
E street, from Third to Four-and-a-half	35						
E street, from Four-and-a-half to Seventh	35						
E street, from Seventh to Thirteenth	35						
E street, from Thirteenth to Maryland avenue	35						
F street, from Four-and-a-half to Seventh	35						
F street, from Seventh to Twelfth	35						
F street, from Half to Four-and-a-half	35						
G street, from South Capitol to Third	35						
G street, from Third to Four-and-a-half	35						
G street, from Four-and-a-half to Eighth	35						
G street, from Eighth to Water	35						
H street, from South Capitol to Delaware avenue	35						
H street, from Delaware avenue to Third street	35						
H street, from Third to Four-and-a-half	35						
H street, from Four-and-a-half to Seventh	35						
H street, from Seventh to Ninth	35						
H street, from Ninth to Water	35						
I street, from South Capitol to Water	35						
K street, from South Capitol to First	35						
K street, from First to Water	35						
L street, from South Capitol to Four-and-a-half	35						
L street, from Four-and-a-half to Water	35						
M street, from South Capitol to Four-and-a-half	35						

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## SOUTHWEST—Continued.

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	Year paved.	Year resurfaced.	
M street, from Four-and-a-half to Water	35	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	1891		Granite.
Robinson street, from L and M to Sixth and Water	25			1,882				945			
Van street, from M and N to Third and Four-and-a-half								1,380	{ 1883 } { 1876 }		Cobble.
N street, from South Capitol to Sixth	35				15,463		2,127		1887		Asphalt block.
McLean street, from N and O to Third and Four-and-a-half	30							8,530			
O street, from South Capitol to Water	32							9,000			
P street, from South Capitol to Water	30							4,367			
Q street, from South Capitol to Canal	32							4,900			
R street, from South Capitol to Canal	30							4,900			
S street, from South Capitol to Canal	30							3,620			
T street, from Half to Canal	30							3,633			
U street, from Eastern Branch to Canal street	30							2,000			
V street, from Eastern Branch to Canal street	30							13,587			
Canal street, from B street to E	80			5,186					1891		Trap.
Water street, from P to Sixth	50			3,600					1876		Granite.
Water street, from Sixth to Seventh	50			8,000					1884		Do.
Water street, from Seventh to Twelfth	50			14,000					1872		Do.
Water street, from Twelfth to Thirteen-and-a-half	50			4,450					1880		Do.
Delaware avenue, from B to G street	50			2,056							Do.
Delaware avenue, from G to P street	50							18,888			Cobble.
Maine avenue, from Third to Sixth street	35				4,635				1872		Asphalt.
Maryland avenue, from First to Third street	60	3,394			12,803				1883		Cobble.
Maryland avenue, from Third to Seventh street	60			29,050					1873		Granite.
Maryland avenue, from Seventh to Water street	60							13,580	1875		
Virginia avenue, from South Capitol to Four-and-a-half street											Do.
Virginia avenue, from Four-and-a-half to Seventh street				1,722					1881		Do.
Virginia avenue, from Ninth to Twelfth street				3,836							
Georgia avenue, from South Capitol to Canal street	50							8,888			





## Statement of character and extent of street pavements, July 1, 1892—Continued.

## SOUTHEAST—Continued.

Locality.	Carriageway.										Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	Year paved.	Year resurfaced.	
Thirteenth street, from East Capitol to D.....	35	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.			Macadam.
Thirteenth street, from D to Pennsylvania avenue.....	35					2,638		6,644			
Thirteenth street, from Pennsylvania avenue to river.....	35							9,538			
Fourteenth street, from East Capitol to river.....	35							14,791			
Fifteenth street, from East Capitol to river.....	35							13,796			
Sixteenth street, from East Capitol to Kentucky avenue.....	35							8,788			
Seventeenth street, from East Capitol to river.....	35							12,089			
Eighteenth street, from East Capitol to Congressional Cemetery.....	35							8,107			
Nineteenth street, from East Capitol to Congressional Cemetery.....	35							8,107			
Twentieth street, from East Capitol to B.....	35							2,560			
Twenty-first street, from East Capitol to B.....	35							2,560			
Twenty-second street, from East Capitol to B.....	35							2,560			
Twenty-third street, from East Capitol to B.....	35							2,560			
East Capitol street, from First (south half) to Fourth.....	50	2,736							1879	1889	Asphalt.
East Capitol street, from Fourth to Ninth.....	50	5,028							1879	1890	Do.
East Capitol street, from Ninth to Eleventh.....	50	1,786							1883		Do.
East Capitol street, from Lincoln square to Eastern Branch.....	50							12,941			Do.
A street, from Second to Third.....	35	1,724							1881		Asphalt blocks.
A street, from Third to Sixth.....	35						3,317		1886		Do.
A street, from Sixth to Seventh.....	35						2,391		1887		
A street, from Seventh to Ninth.....	35							3,633			
A street, from Massachusetts avenue to Eastern Branch.....	33							11,800			
A street, from South Side of Lincoln square.....	35					4,398					Macadam.
B street, from South Capitol to New Jersey avenue.....	45			370					1873	1891	Granite.
B street, from New Jersey avenue to Second street.....	35	6,887							1881		Coal tar.
B street, from Second to Fifth.....	35	3,810							1887		Asphalt.
B street, from Fifth to North Carolina avenue.....	35		3,154				4,577		1891		Coal tar.
B street, from North Carolina avenue to Eleventh street.....	35					16,445			1891		Asphalt block.
B street, from Eleventh to Nineteenth.....	35							4,622			Macadam.
B street, from Nineteenth to Eastern Branch.....	25							2,030			
Carroll street, from B and C to First and Second.....	24								1889		Asphalt.
C street, from South Capitol to New Jersey avenue.....	32	948							1884		Asphalt block.
C street, from New Jersey avenue to Fourth street.....	32						6,922				

C street, from Fourth to Sixth.	32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
---------------------------------	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## SOUTHEAST—Continued.

Locality.	Carriageway.								Originally paved with—	
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.		Year paved.
		Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.		
Pennsylvania avenue, from Fourth to Seventh street.....	120	6, 126	.....	.....	.....	.....	.....	.....	1879	.....
Pennsylvania avenue, from Eighth to Eleventh street.....	120	5, 320	.....	.....	.....	.....	.....	.....	1883	.....
Pennsylvania avenue, from Eighth to Eleventh street.....	120	5, 400	.....	.....	.....	.....	.....	.....	1888	.....
Pennsylvania avenue, from Eleventh to Bridge street.....	120	.....	.....	.....	.....	20, 147	.....	.....	1890	.....
South Carolina avenue, from Second to Sixth street.....	50	.....	.....	.....	.....	.....	3, 288	9, 439	.....	.....
South Carolina avenue, from Sixth to Seventh street.....	50	.....	.....	.....	.....	.....	.....	17, 777	1891	.....
South Carolina avenue, from Ninth street to Massachusetts avenue.	50	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virginia avenue, from South Capitol to Second street.....	50	.....	.....	.....	.....	.....	.....	8, 344	.....	.....
Virginia avenue, from Second to Third street.....	50	.....	.....	.....	.....	2, 354	.....	.....	1889	.....
Virginia avenue, from Third to Eleventh street.....	50	.....	.....	.....	.....	.....	.....	10, 000	.....	.....
Virginia avenue, from Eleventh street to Eastern Branch.....	50	.....	.....	.....	.....	.....	.....	9, 000	.....	.....

## NORTHEAST.

North Capitol street, from B (east half) to C.....	50	1, 395							1883		Asphalt.
North Capitol street, from C (east half) to E.....	50							2, 271	1889		Cobble.
North Capitol street, from E (east half) to Massachusetts avenue.	50		1, 928						1887		Coal tar.
North Capitol street, from Massachusetts avenue (east half) to I street.	50	3, 728									Asphalt.
North Capitol street, from I (east half) to K.....	50	1, 443							1889		Do.
North Capitol street, from K (east half) to M.....	50	3, 103							1892		Do.
North Capitol street, from M (east half) to Florida avenue.....	50										
Hancock street, from North Capitol and First to F and G streets	24							5, 207	1873	1879	Coal tar.
First street, from East Capitol to B.....	35		4, 412					1, 635	1881		Asphalt.
First street, from B to C.....	35	1, 987							1891		Do.
First street, from C to F.....	35	5, 616									
First street, from F to Florida avenue.....	35										
Colfax street, from First and Second to L and M.....	30							15, 277			
Second street, from East Capitol street to Maryland avenue.....	32	2, 440						2, 167	1881		Do.



32	Second street, from Maryland avenue to C street.	.....	.....	.....	1, 846	.....	.....	.....	1881	.....	Asphalt block.
32	Second street, from C to F.	.....	.....	.....	.....	.....	.....	10, 337	.....	.....	Asphalt.
32	Second street, from F to H.	.....	.....	.....	.....	.....	.....	10, 247	1891	.....	.....
32	Second street, from H to Florida avenue.	.....	.....	.....	.....	.....	.....	1, 000	.....	.....	.....
24	Parker street, from Second and Third to I and K.	.....	.....	.....	.....	.....	.....	.....	1884	.....	Do.
32	Third street, from East Capitol street to Maryland avenue.	.....	.....	.....	.....	.....	.....	.....	1887	.....	Asphalt block.
32	Third street, from Maryland avenue to C street.	.....	.....	.....	.....	.....	.....	.....	1890	.....	Asphalt.
32	Third street, from C to F.	.....	.....	.....	.....	.....	.....	.....	1892	.....	Do.
32	Third street, from F to H.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Third street, from H street to Florida avenue.	.....	.....	.....	.....	.....	.....	8, 640	.....	.....	.....
35	Fourth street, from East Capitol street to Maryland avenue.	.....	.....	.....	.....	.....	.....	4, 526	1885	.....	Asphalt block.
35	Fourth street, from Maryland avenue to Massachusetts avenue.	.....	.....	.....	.....	.....	.....	1, 912	1887	.....	Do.
35	Fourth street, from Massachusetts avenue to D street.	.....	.....	.....	.....	.....	.....	837	1891	.....	Do.
35	Fourth street, from D street to Florida avenue.	.....	.....	.....	.....	.....	.....	16, 337	.....	.....	.....
40	Fifth street, from East Capitol street to C street.	.....	.....	.....	.....	.....	.....	4, 816	1886	.....	Do.
40	Fifth street, from C to D street.	.....	.....	.....	.....	.....	.....	875	1890	.....	Do.
40	Fifth street, from D street to Florida avenue.	.....	.....	.....	.....	.....	.....	16, 495	.....	.....	.....
40	Fifth street, from D street to Florida avenue.	.....	.....	.....	.....	.....	.....	4, 626	1886	.....	Do.
35	Sixth street, from East Capitol street to Maryland avenue.	.....	.....	.....	.....	.....	.....	2, 836	{ 1891 } { 1887 }	.....	Do.
35	Sixth street, from Maryland avenue to D street.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Sixth street, from D street to Florida avenue.	.....	.....	.....	.....	.....	.....	14, 645	.....	.....	.....
30	Lowndes street, from Sixth and Seventh to L and M.	.....	.....	.....	.....	.....	.....	2, 100	.....	.....	.....
32	Seventh street, from East Capitol street to Massachusetts avenue.	.....	.....	.....	.....	.....	.....	3, 340	1887	.....	Do.
32	Seventh street, from Massachusetts avenue to D street.	.....	.....	.....	.....	.....	.....	3, 315	1889	.....	.....
32	Seventh street, from D street to Florida avenue.	.....	.....	.....	.....	.....	.....	11, 215	.....	.....	.....
40	Eighth street, from D street to Massachusetts avenue.	.....	.....	.....	.....	.....	.....	2, 969	1889	.....	Do.
40	Eighth street, from East Capitol street to Maryland avenue.	.....	.....	.....	.....	.....	.....	5, 858	1891	.....	Do.
40	Eighth street, from Maryland avenue to I street.	.....	.....	.....	.....	.....	.....	7, 963	.....	.....	.....
40	Eighth street, from I to K.	.....	.....	.....	.....	.....	1, 747	.....	1891	.....	Macadam.
40	Eighth street, from K street to Florida avenue.	.....	.....	.....	.....	.....	.....	3, 697	.....	.....	.....
32	Ninth street, from East Capitol street to Massachusetts avenue.	.....	.....	.....	.....	.....	.....	1, 195	.....	.....	.....
32	Ninth street, from Massachusetts avenue to Maryland avenue.	.....	.....	.....	.....	.....	.....	6, 702	1891	.....	Asphalt block.
32	Ninth street, from Maryland avenue to H street.	.....	.....	.....	.....	.....	.....	.....	1891	.....	Asphalt.
32	Ninth street, from H street to Florida avenue.	.....	.....	.....	.....	.....	.....	4, 988	.....	.....	.....
32	Tenth street, from East Capitol street to Florida avenue.	.....	.....	.....	.....	.....	.....	16, 603	.....	.....	.....
32	Eleventh street, from East Capitol street to Florida avenue.	.....	.....	.....	.....	.....	.....	17, 000	.....	.....	.....
35	Twelfth street, from Lincoln Square to Maryland avenue.	.....	.....	.....	.....	.....	.....	9, 300	.....	.....	.....
32	Twelfth street, from Maryland avenue to Florida avenue.	.....	.....	.....	.....	.....	7, 163	.....	.....	.....	.....
35	Thirteenth street, from Maryland avenue to Emerson street.	.....	.....	.....	.....	.....	.....	.....	1490	.....	Macadam.
35	Thirteenth street, from Maryland avenue to Emerson street.	.....	.....	.....	.....	.....	.....	1, 725	1892	.....	Asphalt.
32	Thirteenth street, from East Capitol street to Florida avenue.	.....	.....	.....	.....	.....	.....	14, 898	.....	.....	.....
22	Elliot, from Thirteenth and Fourteenth to F street and Maryland avenue.	.....	.....	.....	.....	.....	.....	1, 500	.....	.....	.....
20	Emerson street, from Thirteenth and Fourteenth to E and F.	.....	.....	.....	.....	.....	.....	.....	1892	.....	Do.
35	Fourteenth street, from East Capitol street to Florida avenue.	.....	.....	.....	.....	.....	.....	14, 791	.....	.....	.....
.....	Fourteen-and-a-half street, from Fourteenth and Fifteenth streets to C and D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Florence Court, from Fourteenth and Fifteenth streets to F and G.	.....	.....	.....	.....	.....	.....	1, 500	.....	.....	.....
35	Fifteenth street, from East Capitol street to Florida avenue.	.....	.....	.....	.....	.....	.....	12, 196	.....	.....	.....
35	Sixteenth street, from East Capitol to C.	.....	.....	.....	.....	.....	.....	4, 196	.....	.....	.....
35	Seventeenth street, from East Capitol to C.	.....	.....	.....	.....	.....	.....	4, 196	.....	.....	.....
35	Eighteenth street, from East Capitol to C.	.....	.....	.....	.....	.....	.....	4, 196	.....	.....	.....
35	Nineteenth street, from East Capitol to C.	.....	.....	.....	.....	.....	.....	4, 196	.....	.....	.....

## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHEAST—Continued.

Locality.	Carriageway.								Originally paved with—
	Width.	Asphalt.	Coal tar and concrete.	Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	
		Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	
Twentieth street, from East Capitol to C.....	35	.....	.....	.....	.....	.....	.....	4, 196	.....
Eldridge street, from Twentieth and Twenty-first.....	20	.....	.....	.....	.....	.....	.....	1, 033	.....
Twenty-first street, from East Capitol to C.....	35	.....	.....	.....	.....	.....	.....	4, 196	.....
Twenty-second street, from East Capitol to C.....	35	.....	.....	.....	.....	.....	.....	4, 196	.....
Twenty-third street, from East Capitol to C.....	35	.....	.....	.....	.....	.....	.....	4, 196	.....
Twenty-fourth street, from East Capitol to C.....	35	.....	.....	.....	.....	.....	.....	4, 196	.....
Twenty-fifth street, from B to C.....	35	.....	.....	.....	.....	.....	.....	1, 711	.....
East Capitol street, from First (north half) to Fourth.....	50	2, 737	.....	.....	.....	.....	.....	.....	Asphalt.
East Capitol street, from Fourth (north half) to Ninth.....	50	3, 417	.....	.....	.....	.....	.....	.....	Do.
East Capitol street, from Ninth (north half) to Eleventh.....	50	1, 786	.....	.....	.....	.....	.....	.....	Do.
East Capitol street, from Lincoln Square (north half) to Eastern Branch.....	50	.....	.....	.....	.....	.....	.....	12, 941	.....
A street, from First to Second.....	35	2, 788	.....	.....	.....	.....	.....	.....	Do.
A street, from Second to Fourth.....	35	2, 972	.....	.....	.....	.....	.....	.....	Do.
A street, from Fourth to Seventh.....	35	.....	4, 206	.....	.....	.....	.....	.....	Coal tar.
A street, from Seventh to Ninth.....	35	.....	.....	.....	.....	.....	2, 300	.....	Asphalt blocks.
A street, from North Carolina avenue to Eastern Branch.....	35	.....	.....	.....	.....	.....	.....	17, 111	.....
A street, from North side Lincoln Square.....	35	.....	.....	.....	.....	4, 244	.....	.....	Macadam.
B street, from North Capitol street to Delaware avenue.....	46	.....	.....	1, 533	.....	.....	.....	.....	Granite.
B street, from Delaware avenue to First street.....	46	4, 411	.....	.....	.....	.....	.....	.....	Coal tar.
B street, from First to Second.....	40	.....	3, 098	.....	.....	.....	.....	.....	Do.
B street, from Second to Fourth.....	35	2, 556	.....	.....	.....	.....	.....	.....	Asphalt.
B street, from Fourth to Sixth.....	35	2, 016	.....	.....	.....	.....	.....	.....	Do.
B street, from Sixth street to Massachusetts avenue.....	35	.....	2, 250	.....	.....	.....	.....	24, 480	Coal tar.
B street, from Massachusetts avenue to Eastern Branch.....	35	.....	.....	.....	.....	.....	.....	1, 110	.....
Park street, from B and C to Eleventh and Twelfth.....	30	.....	.....	.....	.....	.....	.....	.....	.....
C street, from North Capitol street to Delaware avenue.....	46 { 63 }	.....	.....	1, 107	.....	.....	.....	.....	Granite.
C street, from Delaware avenue to First street.....	32	.....	.....	2, 081	.....	.....	.....	.....	Do.
C street, from First to Third.....	38	.....	.....	4, 191	.....	.....	.....	.....	Do.
C street, from Third to Fourth.....	32	.....	.....	1, 505	.....	.....	.....	.....	Do.
C street, from Fourth to Sixth.....	32 { 35 }	.....	.....	.....	.....	.....	4, 468	.....	Asphalt, block.

C street, from Sixth to Eighth.	32						3,986		1888			Do.
C street, from Eighth to Tenth.	32						2,180		1891			Do.
C street, from Tenth street to Eastern Branch.	32							19,195				
D street, from North Capitol to Third.	32							7,169				
D street, from Third street to Maryland avenue.	32						5,446		1889			Macadam.
D street, from Maryland avenue to Fifteenth street.	32											
E street, from North Capitol to Fifteenth.	35							16,063				
California street, from E and F to First and Second.	24							23,992				
F street, from North Capitol to Third.	35								1891			Asphalt.
F street, from Third to Fifteenth.	35								1888			Do.
Chicago street, from F and G to First and Second.	30							17,861				
Morris street, from F and G to Sixth and Seventh.	30							2,285				
G street, from North Capitol to First.	35							2,000				
G street, from First to Sixth.	35								1890			Do.
G street, from Sixth to Seventh.	35							6,151				
G street, from Seventh to Fifteenth.	40								1891			Macadam.
Jackson street, from G and H to North Capitol and First.	20							10,932				
James street, from G and H to Twelfth and Thirteenth.	30											Cobble.
H street, from North Capitol to First.	56							1,151				
H street, from First to Fifteenth.	56								1883	1891		Asphalt.
H street, from First to Fifteenth.	56								1883			North side, asphalt.
Wylie street, from H and I to Twelfth and Thirteenth.	24							1,360				South side, asphalt.
I street, from North Capitol to First.	35								1889			Asphalt.
I street, from North Capitol to Sixth.	35							7,551				
I street, from Sixth to Seventh.	35								1889			Macadam.
I street, from Seventh street to Florida avenue.	35							8,058				
Myrtle street, from North Capitol and First to I and K.	20								1889			Asphalt.
K street, from North Capitol to First.	50								1889			Do.
K street, from First street to Florida avenue.	50							23,436				
Fenton street, from North Capitol and First to K and L.	24							2,220				
Callan street, from K and L to Sixth and Seventh.	24							1,267				
L street, from North Capitol street to Florida avenue.	35							15,154				
Forsyth street, from North Capitol to First, L, and M.	25							2,220				
Babcock street, from L and M to North Capitol and First.	25							2,220				
Riley street, from L and M to North Capitol and First.	25							2,220				
M street, from North Capitol to Florida avenue.	35							10,809				
Patterson street, from M and N to North Capitol and First.	25							2,220				
Morton Place, from Sixth and Seventh to M and L streets.	25							2,100				
N street, from North Capitol to Florida avenue.	25							7,300				
Decatur street, from P and O to North Capitol and First.	25							1,245				
Orleans street, from L and M to Sixth and Seventh.	30							2,100				
O street, from North Capitol to Florida avenue.	35							4,622				
P street, from North Capitol to Florida avenue.	35							2,513				
Delaware avenue, from B to C street.	50								1879			Granite.
Delaware avenue, from C street to Florida avenue.	50							27,112				
Florida avenue, from North Capitol to Ninth street.	46							26,093				
Florida avenue, from Ninth to Fifteenth street.	46								1892			Macadam.
Maryland avenue, from First to Fourth street.	60							11,535				Asphalt Block.
Maryland avenue, from Sixth to Eleventh street.	60							14,951				Do.
Maryland avenue, from Eleventh to Thirteenth street.	60							8,269				Do.
Maryland avenue, from Thirteenth Fifteenth street.	60							9,635				Do.
Maryland avenue, from intersection Fifteenth street.	60							2,527				Granite.



## Statement of character and extent of street pavements, July 1, 1892—Continued.

## NORTHEAST—Continued.

Locality.	Carriageway.										Originally paved with —
	Width.	Asphalt.	Coal tar and concrete.	(Granite.	Cobble and blue rock.	Macadam.	Asphalt block.	Unimproved.	Year paved.	Year resurfaced.	
Massachusetts avenue, from North Capitol to First street.....	50	Sq. yds. 4,069	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	Sq. yds.	1892	.....	Asphalt.
Massachusetts avenue, from First to Fourth street.....	50	.....	.....	.....	.....	.....	.....	7,045	.....	.....	Asphalt block.
Massachusetts avenue, from Sixth to Eighth street.....	50	.....	.....	.....	.....	.....	6,749	.....	1889	.....	Asphalt block.
Massachusetts avenue, from Eighth to Eleventh street.....	50	.....	.....	.....	.....	.....	.....	6,111	.....	.....	Asphalt.
New York avenue, from North Capitol street to Florida avenue.....	50	5,393	.....	.....	.....	.....	.....	11,110	1891	.....	Asphalt.
North Carolina avenue, from Lincoln Square to C street.....	50	.....	.....	.....	.....	.....	.....	17,222	.....	.....	.....
Tennessee avenue, from Lincoln Square to Fifteenth street.....	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

## GEORGETOWN.

Water street, from Rock Creek to Aqueduct.....	50			18,021					1875	Granite.
South street, from Water and M to Thirty-first and Thirty-second.										
Grace street, from Potomac to Thirty-second.....	20			1,228					1873	Granite.
M street, from Twenty-eighth to Thirty-first.....	50		4,579						1873	Coal tar.
M street, from Twenty-sixth to Twenty-eighth.....	50	1,138							1877	Asphalt.
M street, from Twenty-sixth to Thirty-first.....	50		7,887						1875	Coal tar.
M street, from Thirty-first to Thirty-seventh.....	50		13,684						1875	Granite.
M street, from Thirty-seventh to Thirty-eighth.....	50					1,720			{ 1876 } { 1877 }	Macadam.
Olive street, from Rock Creek to Twenty-eighth.....	44							1,566		
Olive street, from Twenty-eighth to Thirtieth.....	30				1,946				1872	Cobble.
Prospect street, from Thirty-second to Thirty-third.....	30	2,789							1891	Asphalt.
Prospect street, from Thirty-third to Thirty-fifth.....	30	2,918							1890	Do.
Prospect street, from Thirty-fifth to Thirty-sixth.....	30	966							1891	Do.
Prospect street, from Thirty-sixth to Thirty-eighth.....	30							2,089		
N street, from Rock Creek to Twenty-seventh.....	30							870		
N street, from Twenty-seventh to Twenty-eighth.....	30								1874	Cobble.
N street, from Twenty-eighth to Thirtieth.....	30				959				1882	Asphalt block.
N street, from Thirtieth to Thirty-second.....	30	2,525					1,599		1880	Asphalt.











## SPECIFICATIONS FOR STANDARD PAVEMENTS AND STREET CONSTRUCTION MATERIAL.

### SPECIFICATIONS FOR SHEET ASPHALT PAVEMENTS.

#### STANDARD ASPHALT PAVEMENT ON CONCRETE BASE.

Standard asphalt pavement will be 9 inches in thickness, consisting of a base composed of 6 inches of hydraulic concrete and 2 inches of binder,  $1\frac{1}{2}$  inches when compacted, and a wearing surface of standard asphalt  $2\frac{1}{2}$  inches in thickness, or  $1\frac{1}{2}$  inches when compacted.

The space over which the pavement is to be laid having been excavated to the depth of 9 inches below the top surface of the pavement when completed, any objectionable or unsuitable matter below the bed will be removed and the space filled with clean gravel or sand well rammed. The bed will then be trimmed so as to be parallel to the surface of the pavement when completed, and the entire roadbed will be thoroughly rolled with a steam-roller weighing at least 10 tons.

Upon the foundation thus prepared the pavement will be laid as follows:

*Hydraulic cement concrete base.*—This will be 6 inches in depth and will be laid as follows, and with material conforming to the following specifications:

*Hydraulic cement.*—The cement in use shall be a natural hydraulic cement, and shall conform to the current specifications for supplying such hydraulic cement to the engineer department of the District of Columbia. No hydraulic cement shall be used upon the work until it has been tested in the office of the Engineer Commissioner and accepted by him, the tests to extend over such a length of time, not exceeding twenty-eight days, as the Engineer Commissioner may think necessary. The cement, while in storage or upon the work or while being hauled upon the work, shall be properly protected; and no cement shall be used which, in the opinion of the Engineer Commissioner, has been injured by exposure. The cement shall be kept by the contractor in store, under proper cover, in the city of Washington, and subject to inspection for at least ten days before it is used on the streets.

*Sand.*—The sand used shall be clean, sharp, river sand, free from mud, clay, mica, and foreign matter, and not showing, on shaking with water and subsidence, more than 5 per cent by volume of loam.

*Stone.*—The stone in use shall be the best Potomac granite or its equivalent. It shall be broken to pass a  $2\frac{1}{2}$ -inch screen, and, as used in the work, at least 85 per cent of it must pass by its largest dimension a  $2\frac{1}{4}$ -inch ring, and of the remaining 15 per cent no pieces shall have a larger dimension than  $3\frac{1}{2}$  inches.

In hauling stone, sand, and cement upon the work the soil foundation shall be properly planked and protected from injury, and no materials will be dumped except on a proper planking.

*Concrete.*—The concrete shall be composed of the above materials, manipulated as follows: The mortar shall be composed of cement and sand in the proportion of 300 pounds of cement and 2 barrels of loose sand, thoroughly mixed dry, and a sufficient quantity of water added afterward to form as stiff a paste as it is practicable to work, the proportions given being intended to form a mortar in which every particle of sand shall be enveloped by cement, and this result must be obtained to the satisfaction of the Engineer Commissioner and under his direction.

Facilities shall be given the Engineer Commissioner and his representatives for weighing and measuring the cement and sand, and they shall also be allowed to take such samples of materials as they may think necessary.

To the mortar made as above the specified broken stone shall be added in such proportions that the resulting concrete shall contain, for every 300 pounds of cement and 2 barrels of loose dry sand, such a proportion of broken stone as to give a slight surplus of mortar when rammed. This proportion shall be regulated by the Engineer Commissioner or his representatives. The stone shall be thoroughly cleaned from dust and foreign substances, and sprinkled before it is added to the mortar. Any material which would pass a No. 10 screen will be regarded as a foreign substance. Each batch of concrete shall be thoroughly mixed upon a water-tight board, in a manner satisfactory to the Engineer Commissioner or his representatives, until each piece of stone is coated with mortar. It will then be spread upon the foundation so that the mortar shall remain evenly incorporated with the stone, which can best be



accomplished by a turning of the shovel in the act of dumping, and then thoroughly compacted by ramming until free mortar appears on the surface.

Any evidence of lack of compaction shall be regarded as sufficient reason for requiring removal and replacement of base. If required, the surface of the concrete shall be gone over by the contractor after ramming and any inequalities or voids filled with mortar.

If at any time, for any violation of the preceding specifications, any hydraulic concrete should in the opinion of the Engineer Commissioner prove in any portion or entirely inferior, it shall be removed by the contractor and replaced in a suitable manner; and if after twenty-four hours' notice he shall have failed to do so, it shall be removed and the cost charged to any money which may be due him or may become due him by the District.

The contractor shall not enter upon a hydraulic concrete base in order to lay the binder course until in the opinion of the Engineer Commissioner it has obtained sufficient strength for such a purpose, and during the period between laying base and binder he shall properly protect it, and when ordered by the Engineer Commissioner shall sprinkle it in warm weather between the hours of sunset and sunrise as often as may be deemed necessary, or in cold weather cover it with a material suitable for its protection.

*Binder.*—The binder course shall be composed of suitable clean broken stone passing  $1\frac{1}{2}$ -inch screen. Eighty-five per cent of this shall pass in its longest dimension, and of the remaining 15 no piece shall have a larger dimension than 2 inches; and the stone, after passing the heating drums, shall not contain more than 5 per cent of material passing a No. 10 screen.

The stone will be heated in suitable appliances, not higher than  $300^{\circ}$  F. It is then to be thoroughly mixed by machinery with asphalt cement made with petroleum residuum, such as is acceptable for surface cement, at  $300^{\circ}$  to  $325^{\circ}$  F.; penetration,  $150^{\circ}$  to  $230^{\circ}$ , in proportion of about 6 to 7 pints of cement to 1 cubic foot of stone.

The mixture will be so made that the resulting binder has life and gloss without an excess of cement. Should it appear dull from overheating or lack of cement it will be rejected.

No cements composed of mixtures of asphalt and tar will be allowed. While hot it will be hauled upon the work, spread upon the base to such a thickness that when compacted it will be  $1\frac{1}{2}$  inches in thickness, and immediately rammed and rolled until it is cold.

Should the resulting course not show a proper bond it shall be immediately removed and replaced by the contractor, or should he fail to do so in twenty-four hours after written notice from the Engineer Commissioner it shall be removed and the cost charged against any moneys which may be or may become due him from the District.

*Wearing surface.*—The wearing surface shall be  $1\frac{1}{2}$  inches in thickness when compacted, and shall be made in the following manner and with materials complying with the following specifications:

The materials which shall be employed are as follows:

- (1) Asphaltum.
- (2) Heavy petroleum.
- (3) Sharp, clean river sand.
- (4) Fine powder of limestone.

*Asphaltum.*—The asphalt shall be from the pitch lake of the island of Trinidad, or any other deposits which may be proved to be equally suitable, to the satisfaction of the Engineer Commissioner.

When Trinidad asphalt is used the crude pitch shall be subject to the inspection of the Engineer Commissioner. It shall be a bright, live, porous pitch, corresponding in chemical composition and physical properties with the best Trinidad pitch, as determined by comparison with data on file in the office of the inspector of asphalt and cements, and shall be equal in quality to the pitch in use in pavements in the District during the fiscal year 1891-'92, and shall be in every respect satisfactory to the Engineer Commissioner.

*Refined asphalt.*—The crude pitch shall be refined under the direction and to the satisfaction of the Engineer Commissioner, and when refined in the stills now existing in the District shall not be run off or considered refined in less than 115 hours, and the resulting product shall be smooth and free from lumps of unmelted pitch or organic matter not bituminous. It shall not at any time reach a temperature over  $375^{\circ}$  F. The asphaltic cement shall be prepared from such refined asphalt as may meet the approval of the Engineer Commissioner and suitable heavy petroleum oil.

*Heavy petroleum oil.*—The oil in use in the manufacture of asphalt cement shall be a petroleum from which the lighter oils have been removed by distillation, without cracking, preferably especially for paving purposes, until the oil has the following characteristics:

Specific gravity Beaumé,  $17^{\circ}$  to  $21^{\circ}$ .

Flash point, not less than  $300^{\circ}$  F.

Distillate at 400° for ten hours, less than 10 per cent.

Shall not cease to flow above 60° F.

Shall not require more than 21 pounds of oil for each 100 pounds of refined asphalt to produce the specified quality of cement.

The flash point shall be taken in a New York State closed oil-tester.

The distillate shall be made with about 90 grams of oil in a small glass retort provided with a thermometer and packed entirely in asbestos.

The flowing point shall be determined by cooling 100 c.c. of oil in a small bottle and noting the temperature at which it flows readily from one end of the bottle to the other.

*Asphaltic cement.*—Shall be prepared from refined asphalt and heavy petroleum oil, complying with the above specifications.

To the melted asphalt at a temperature of not over 325° F. the oil, after having been heated to at least 150° F., is to be added in suitable proportions to produce an asphalt cement penetrating from 75° to 95°, as may be directed by the Engineer Commissioner, on the penetration machine now in the office of the inspector of asphalt and cements. To accomplish this from 15 to 21 pounds of oil per 100 of refined asphalt will be required. As soon as the oil has begun to be added suitable agitation by means of an air blast or other acceptable appliances will commence and be continued till a homogeneous cement is produced. The appliances for agitation shall be such as to accomplish this in at least ten hours, during which the temperature shall be kept at from 290° to 325° F., and no higher. If the cement then appear homogeneous and free from lumps and from inequalities, as shown by penetration of samples from different parts of the still, it may be used. Should it not prove homogeneous and of the proper penetration, such deficiencies as may exist shall be corrected by the addition of hot oil or melted asphalt in the necessary proportion.

Where asphalt cement is kept in storage it must be thoroughly agitated when used, as must also all dipping kettles while in use.

Samples of the asphaltic cement and of the petroleum oil shall be supplied to the inspector of asphalt and cements when required, and in suitable tin boxes and cans, and he shall have access to all branches of the works at any time.

*Sand.*—The sand in use shall be the best sharp, clean river sand obtainable, equal to that described for use in hydraulic concrete for base, and none shall be used which is collected in the river above the Long Bridge. When deemed advisable by the Engineer Commissioner, stone dust, which shall be the fine screenings produced by the crushers, may be substituted for a portion of the sand.

*Limestone dust.*—This shall be an impalpable powder of carbonate of lime, the whole of which shall pass a 30-mesh screen, and at least 75 per cent pass a 100-mesh screen.

*Asphalt surface.*—The materials complying with the above specifications shall be mixed in the following proportions by weight:

	Parts.
Asphalt cement.....	13 to 14
Sand .....	79 to 85
Limestone dust .....	3 to 6

The proportion of materials used will depend upon their character and the traffic on the street, and will be determined by the Engineer Commissioner, but the percentage of bitumen in any mixture soluble in carbon bisulphide shall not exceed the limits 9 to 11 per cent. If the proportions of the mixture are varied in any manner from those specified the mixture will be condemned; its use will not be permitted; and, if already placed on the street, it will be removed and replaced by proper materials at the expense of the contractor.

The sand or the mixture of sand and stone dust and the asphaltic cement will be heated separately to about 300° F. The pulverized carbonate of lime, while cold, will be mixed with the hot sand in the required proportions and then mixed with the asphalt cement, at the required temperature and in the proper proportion, in a suitable apparatus so as to effect a thoroughly homogeneous mixture. Sand boxes and asphalt gauges will be weighed in presence of inspectors as often as may be desired.

The pavement mixture prepared in a manner thus indicated will be brought to the ground in carts at a temperature of not less than 250° F., and if the temperature of the air is less than 50° F. the contractor must provide canvas covers for use in transit. It will then be thoroughly spread by means of hot-iron rakes in such manner as to give uniform and regular grade and to such depth that, after having received its ultimate compression of two-fifths, it will have a net thickness of 1½ inches. This depth will be constantly tested by means of gauges furnished by the Engineer Commissioner. The surface will then be compressed by hand rollers, after which a small amount of hydraulic cement will be swept over it, and it will then be thoroughly compressed by a steam roller weighing not less than 250 pounds to the inch run, the rolling being continued for not less than five hours for every 1,000 yards of surface.



## STANDARD ASPHALT PAVEMENT ON BITUMINOUS BASE.

Standard asphalt pavement on bituminous base will consist of a base 4 inches, a binder of  $1\frac{1}{2}$  inches, and a wearing surface of  $1\frac{1}{2}$  inches in thickness when compacted.

The space over which the pavement is to be laid will be excavated to the depth of 7 inches below the surface of the pavement when completed. Any objectionable or unsuitable material below the bed must be removed, and the space filled with clean gravel or sand well rammed. The bed will then be trimmed so as to be exactly parallel to the surface of the new pavement when completed, and the entire road bed will be thoroughly rolled with a heavy steam roller weighing not less than 5 tons.

Upon this foundation will be laid the base and binder,  $5\frac{1}{2}$  inches in thickness, in the following manner:

*Base.*—The base will be composed of clean broken stone, free from spalls, that will pass through a 3-inch ring, well rammed and rolled with a steam roller weighing not less than 5 tons, to a depth of 4 inches. The rolling will be continued until the stone ceases to creep before the roller and until it is evident the final compression has been reached. It will then be thoroughly coated with No. 4 coal-tar paving cement in the proportion of about 1 gallon to the square yard of base.

*Binder and surface.*—These shall be the same as specified for standard asphalt pavement on concrete base.

## SPECIAL INSTRUCTIONS TO BIDDERS.

(1) The attention of bidders is invited to the clause of the appropriation bill which says:

"That, under appropriations contained in this act, no contract shall be made for making or repairing concrete or asphalt pavement at a higher price than two dollars and twenty-five cents per square yard for a pavement with hydraulic base and two dollars per square yard for a quality equal to the best laid in the District prior to July first, eighteen hundred and eighty-six, and with same depth of base."

(2) Bidders must present satisfactory evidence that they have been regularly engaged in the business of laying asphalt pavements which they propose to put down, or are reasonably familiar therewith, and that they are fully prepared with the necessary capital, materials, and machinery to conduct the work to be contracted for to the satisfaction of the Commissioners.

(3) None but the best material of the several descriptions shall be used, and skilled laborers and mechanics shall be employed.

(4) The contractor shall suspend all work under this contract when notified by the Engineer Commissioner that the weather is unsuitable for carrying it on. If work is allowed during cold or freezing weather the contractor shall take such additional precautions as the Engineer Commissioner shall require without additional expense, and under no circumstance shall materials which have been affected by the weather be used.

(5) All materials furnished and work done not in accordance with these specifications shall be removed within twenty-four hours after written notice from the Engineer Commissioner by and at the expense of the contractor, or, in case of failure to do so, it shall be removed and the cost charged to the contractor and deducted from the amount due or which may become due him.

(6) The bidder is expected to examine the site before bidding, as no allowance will be made for any unusual difficulties which may arise either affecting the original construction or maintenance of the finished work.

(7) No work shall be done between December 15 and March 15 without special permission of the Commissioners.

(8) Contractors shall be responsible for any work done upon any street over plumbers' cuts or other work done by the permission of the Commissioners up to the time work is commenced upon said street.

(9) If so ordered all work must be completed by ———.

## SPECIFICATIONS FOR LAYING ASPHALT BLOCK PAVEMENT.

(1) The size of the blocks will be 4 by 5 by 12 inches, and a variation of one-fourth of an inch from these dimensions will be sufficient grounds for rejecting any block.

(2) The blocks will be composed of—

Paving cement .....	8 to 12
Crushed limestone .....	92 to 88

The paving cement will be made from refined Trinidad or other acceptable asphaltum and heavy petroleum. The petroleum must be freed from all impurities and brought to a specific gravity of from  $18^{\circ}$  to  $22^{\circ}$  B. and a fire test of  $300^{\circ}$  F. The right is reserved to inspect the manufacture of the blocks at any time.



All bids must be accompanied by a specimen block of the size and quality described in these specifications, labeled with the name of the bidder and the locality of the factory. Bids not accompanied by specimen blocks will not be accepted. The blocks will be tested for specific gravity and tensile and crushing strength, and all blocks furnished will be subject to test and approval.

(3) The space over which the pavement is to be laid will be excavated to the depth of 12 inches below the top line of the proposed pavement when fully rammed. Any objectionable or unsuitable material below the bed will be removed and the space filled with clean gravel or sand. Care must be taken in excavating to preserve the proper crown. All holes and inequalities will be filled with sand or gravel, such filling to be thoroughly compacted by rolling or ramming.

(4) Upon this foundation, as above, is to be laid a bed of fine bank gravel, to be screened from all pebbles measuring more than  $1\frac{1}{4}$  inches in their largest dimensions, 5 inches thick when compacted by rolling and ramming. Upon this will be laid a bed of fine, sharp sand, washed and dried, 2 inches in thickness, to serve as a bed for the blocks, which will be laid directly upon and embedded in it with close joints. Special care will be observed to make the surface of this bed of sand exactly parallel to the surface of the pavement when complete. The blocks must be laid by the pavers standing or kneeling upon the blocks already laid and not upon the bed of sand.

(5) The blocks are to be laid diagonally with the line of the street or at right angles, and with such crown as the Engineer Commissioner may direct; each course to be of blocks of an uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least 4 inches. Each course of blocks will be driven against the course preceding it by a heavy maul, in order to make the lateral joints as tight as possible, and the longitudinal joints will be closed by pressing each course in the direction of its length by a lever. When thus laid the blocks will be immediately covered with clean, fine sand, entirely free from any loam or earthy matter, perfectly dry, and screened through a sieve or screen having not less than twenty meshes to the inch. The blocks will then be carefully rammed by placing a plank over several courses and ramming the plank with a heavy rammer. The ramming will be continued until the blocks reach a firm, unyielding bed and present an uniform surface, with proper grade and crown. Any lack of uniformity in the surface must be corrected by taking up and relaying the blocks. When the ramming is complete a sufficient amount of fine, dry sand, as above described, will be spread over the surface, and swept or raked into the joints.

#### SPECIFICATIONS FOR LAYING GRANITE BLOCK PAVEMENT ON GRAVEL.

(1) The granite-block pavement will be laid on a foundation of gravel and sand, with filling of hot paving cement from coal tar.

(2) The granite blocks will be furnished by the District at the property yards, and must be hauled thence to the street at the contractor's expense.

(3) The space over which the pavement is to be laid will be excavated to the proper depth and rolled with a 5-ton roller. The surface thus finished must be  $12\frac{1}{4}$  inches below the surface of the proposed pavement. Should there be any spongy material or vegetable matter in the bed, all such material shall be removed and the space filled with clean gravel or sand before rolling. Care must be taken in excavating to preserve the proper crown.

(4) Upon this foundation there shall be laid a bed of fine bank gravel 4 inches in depth when compressed with the 5-ton roller. The gravel must be screened from all pebbles measuring more than  $1\frac{1}{4}$  inches in their largest dimensions. Upon this shall be laid a bed, 3 inches thick, of fine, sharp, washed sand, thoroughly dry. The blocks shall be laid with close joints directly upon and imbedded in the sand. The stone blocks are to be laid at right angles with the line of the street, with such crown as the Engineer Commissioner may direct; each course shall be of blocks of a uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least 2 inches. When thus laid the blocks shall be immediately covered with clean, fine, hot gravel, which shall be raked until all the joints become filled therewith. The blocks will be carefully rammed to a firm, unyielding bed, with uniform surface, and with proper grade and crown. There will then be poured into the joints, at a temperature of  $300^{\circ}$  F., paving cement of proper consistency, to be approved by the Engineer Commissioner, to be obtained by the direct distillation of coal tar, and to be the residuum therefrom. The cement required is ordinarily numbered 6 at the manufactory. It will be poured into the joints of the pavement until the sand beneath and the gravel between the blocks will absorb no more and the joints are filled flush with the upper surface of the pavement. Not less than  $3\frac{1}{4}$  gallons of paving cement to each square yard of pavement shall be required; this quantity must be brought upon the ground upon the line of the work, and whatever may remain after the completion of the work shall be the property of the District of Columbia, and shall be hauled to the property yard at the expense of the contractor. Any wastage

of paving cement by pouring over the surface of the pavement instead of between the blocks will be estimated and deducted from the amount reported to have been used, and any such wastage of paving cement remaining upon the surface of the pavement must be covered with a sufficient quantity of fine, dry gravel or sand to absorb it.

#### SPECIFICATIONS FOR LAYING GRANITE BLOCK PAVEMENT ON CONCRETE BASE.

(1) The space over which the pavement is to be laid shall be excavated and rolled as described above. The rolled surface shall be 14 inches below the top surface of the pavement when completed. Any objectionable or unsuitable material below the bed will be removed and the space filled with clean gravel or sand well rammed. The bed will then be trimmed so as to be parallel with the surface of the pavement when completed and the entire roadbed will be thoroughly rolled with a roller weighing at least 5 tons.

*Base.*—Upon this foundation will be laid a bed of hydraulic cement concrete 6 inches in thickness, to be made as follows: One measure of hydraulic cement and two of clean, sharp, washed sand, free from clay, will be thoroughly mixed dry and made into a mortar with the least possible amount of water; broken stone of acceptable dimensions and character, thoroughly cleaned from dust and dirt, drenched with water, but containing no loose water in the heap, will be incorporated immediately with the mortar in such quantities as will give a surplus of mortar when rammed. This proportion, when ascertained, will be regulated by measure. Each batch of concrete will be thoroughly mixed, the mixing being continued on the board until each piece of stone is completely coated with mortar; it will then be spread and at once thoroughly compacted by ramming until free mortar appears upon the surface. The whole operation of mixing and laying each batch will be performed as expeditiously as possible, with the use of a sufficient number of skilled men. No gravel will be used in the concrete, but only angular fragments of stone having rough faces obtained by fracture, and measuring not more than 2 inches on their largest dimensions. The upper surface of the base will be made parallel with the crown of the pavement to be laid and will be suitably protected from the action of the sun and wind until set.

The cement used must conform to the current District of Columbia specifications, and shall in no case be used until sufficient tests have been made to prove this. A sample sufficient for test shall be furnished from each barrel.

Upon the base shall be laid 2½ inches of sand, and upon this the blocks laid in the manner hereinbefore specified for laying granite blocks on gravel base.

The character of the sand and the manner of laying the blocks shall be as described above for laying granite blocks on a base of gravel.

If a 4-inch concrete base is used, the excavation will be 12 inches below the top surface of the pavement when completed; otherwise specifications will be as above described.

#### SPECIFICATIONS FOR LAYING SIDEWALKS.

##### BRICK OR TILE SIDEWALKS.

(1) Brick or tile pavements will be laid on a foundation of gravel and sand. The brick and tile will be furnished by the District, the brick delivered on the line of the work, and the tile at the property yards, and hauled to the work by the contractor; the cost for hauling to be included in the price bid.

(2) For brick sidewalks the space over which the pavement is to be laid will be excavated to the depth of 8 inches below the top surface of the proposed pavement, when thoroughly compacted by rolling or ramming. Any objectionable or unsuitable material below the bed will be removed and the space filled with clean gravel or sand. Care must be taken in excavating to preserve the proper slope parallel with the surface.

(3) Upon the foundation will be laid a bed of fine bank gravel, 4 inches in depth when compacted, screened from all pebbles measuring more than 1½ inches in their largest dimensions, and thoroughly rolled or rammed. Upon this will be laid a bed of fine, sharp sand, washed and dried, 2 inches in thickness (bank sand may be used, but only on written order of Engineer Commissioner), to serve as a bed for the bricks, which will be laid directly upon and imbedded in it, with close joints. Special care will be observed to make the surface of this bed of sand parallel to the surface of the pavement when finished. The bricks must be laid by the pavers standing or kneeling upon the bricks already laid, and not upon the bed of sand.

(4) For the tile sidewalks the foundation will be prepared as for brick sidewalks, excepting that the surface shall be covered with equal parts of fine, dry sand and dry hydraulic cement, thoroughly swept into the joints, and the surplus swept off.



(5) The bricks or tiles are to be laid at right angles with the line of the street, or in herring-bone style, as may be directed by the Engineer Commissioner, and even with the top of the curb when rammed; each course to be of blocks of a uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least 2 inches. Each course will be driven against the course preceding it by a maul, to make tight joints. When thus laid the bricks will be immediately covered with clean, fine, dry sand, free from loam or earthy matter, and screened through a sieve or screen having not less than twenty meshes to the inch. The bricks will then be carefully rammed by placing a plank over several courses and ramming the plank with a heavy hammer. The ramming will be continued until the bricks reach a firm, unyielding bed and present a uniform surface, with proper grade and slope. Any lack of uniformity in the surface must be corrected by taking up and relaying. When the ramming is complete a sufficient amount of fine, dry sand, as above described, will be spread over the surface and swept or raked into the joints.

(6) Rectangular spaces 7 by 3 feet in dimensions will be left unpaved around trees where already planted, and at intervals of 25 feet between centers adjacent to the curb on streets where trees have not been planted. When so ordered, a continuous tree space 4 feet wide will be left unpaved adjacent to the curb.

(7) Edges of brick pavements, when not abutting against the curb, will be finished with a continuous row of brick on edge.

#### SPECIFICATIONS FOR LAYING CEMENT SIDEWALKS.

(1) The space over which the pavement is to be laid will be exactly excavated to the depth of 9 inches below the top surface of the proposed pavement, when thoroughly compacted by rolling, etc.

(2) A bed of coarse material, consisting of broken stone or coarse gravel, shall be laid and thoroughly rammed and rolled. This bed will be 4 inches thick.

(3) On this bed, after wetting same, shall be laid 4 inches of concrete, consisting of small broken stone, size not more than  $1\frac{1}{2}$  inches in any direction, and thoroughly free from dust or dirt, small and clean beach gravel, clean, sharp sand, and Portland cement.

These ingredients shall be thoroughly and intelligently mixed in proportion of 1 part cement, 2 parts sand, 1 part gravel, and 2 parts stone; to be thoroughly manipulated and rammed.

(4) The slab or flag divisions are then to be marked off to any desired size.

(5) On the surface of the concrete shall then be laid a composition of Portland cement and small broken stone similar to the sample furnished, with a square or "cubed" fracture, perfectly fresh and clean, and of sizes from three-eighths of an inch downward, in the proportion of 2 parts Portland cement, 3 parts granite, or other acceptable stone, thoroughly mixed and skillfully laid.

This composition, called granolithic, must be spread to a thickness of 1 inch on the concrete while the latter is still soft and adhesive. It is then to be leveled off and beaten with wooden battens, so as to break any air cells and make the surfacing perfectly solid.

(6) A coating of dry cement and sand (2 parts cement to 1 part sand) is next to be floated into the granolithic layer, which is then finally smoothed by a skillful use of the trowel, and rolled with a toothed roller to make a surface that will not be slippery.

(7) The work to be kept moist and protected from the direct rays of the sun until perfectly set.

(8) All sand, stone, and cement must conform to the District of Columbia specifications for those materials, and samples of cement and stone must be furnished, so as to allow tests to be made before it is used, or the District may furnish the cement themselves, at the discretion of the Engineer Commissioner, District of Columbia.

(9) The division for slabs or flags, on finished surface, shall be in accordance with orders of the Commissioners, District of Columbia.

#### SPECIFICATIONS FOR ASPHALT SIDEWALKS.

*Grading.*—The space over which the sidewalk is to be laid will be graded to a depth of 3 inches below the finished surface of the pavement. Soft and spongy places not affording a firm foundation will be removed and good, clean gravel substituted therefor. The bed thus prepared will be thoroughly rolled and rammed to the satisfaction of the Engineer Commissioner, or his authorized representative.

*Base.*—On the bed prepared as above specified, a layer of clean broken stone, of size not exceeding three-fourths of an inch in largest dimensions, will be spread to a depth of  $2\frac{1}{2}$  inches. This will then be compressed by rolling and tamping to a thickness of 2 inches. On this will be poured, at a temperature of about  $250^{\circ}$  F., the residuum of coal-tar distillation known in the trade as No. 4 Paving Composition.



About one-half a gallon of this composition will be used for each square yard of pavement, and it will be poured on the base of broken stone in such manner as to thoroughly coat the stones or the surface and fill the interstices thereof.

*Wearing surface.*—Equal to the best sheet standard asphalt pavement.

#### GRADING.

(1) The old material from the streets will be hauled to the nearest property yard or to such other point as the Engineer Commissioner may direct.

(2) Granite paving blocks will be furnished at the District property yards or reservations where they may be stored, and must be hauled to the line of the work at the expense of the contractor.

(3) Any material that is the property of the District that is not accounted for by the contractor will be charged against him at the contract price for similar material.

(4) Lines and grade will be established by the Engineer Commissioner, and no work will be commenced until these are given.

(5) All material excavated, of whatsoever nature, is the property of the District, and will be disposed of as the Engineer Commissioner shall direct.

(6) The filling will be done in layers not exceeding 12 inches in thickness, and all material used for this purpose will be subject to approval. If improper or unsuitable material be used, it will be removed at the cost of the contractor.

(7) All measurements will be made in place, and payments made thereon.

#### SPECIFICATIONS FOR SETTLING STANDARD GRANITE AND BLUESTONE CURB.

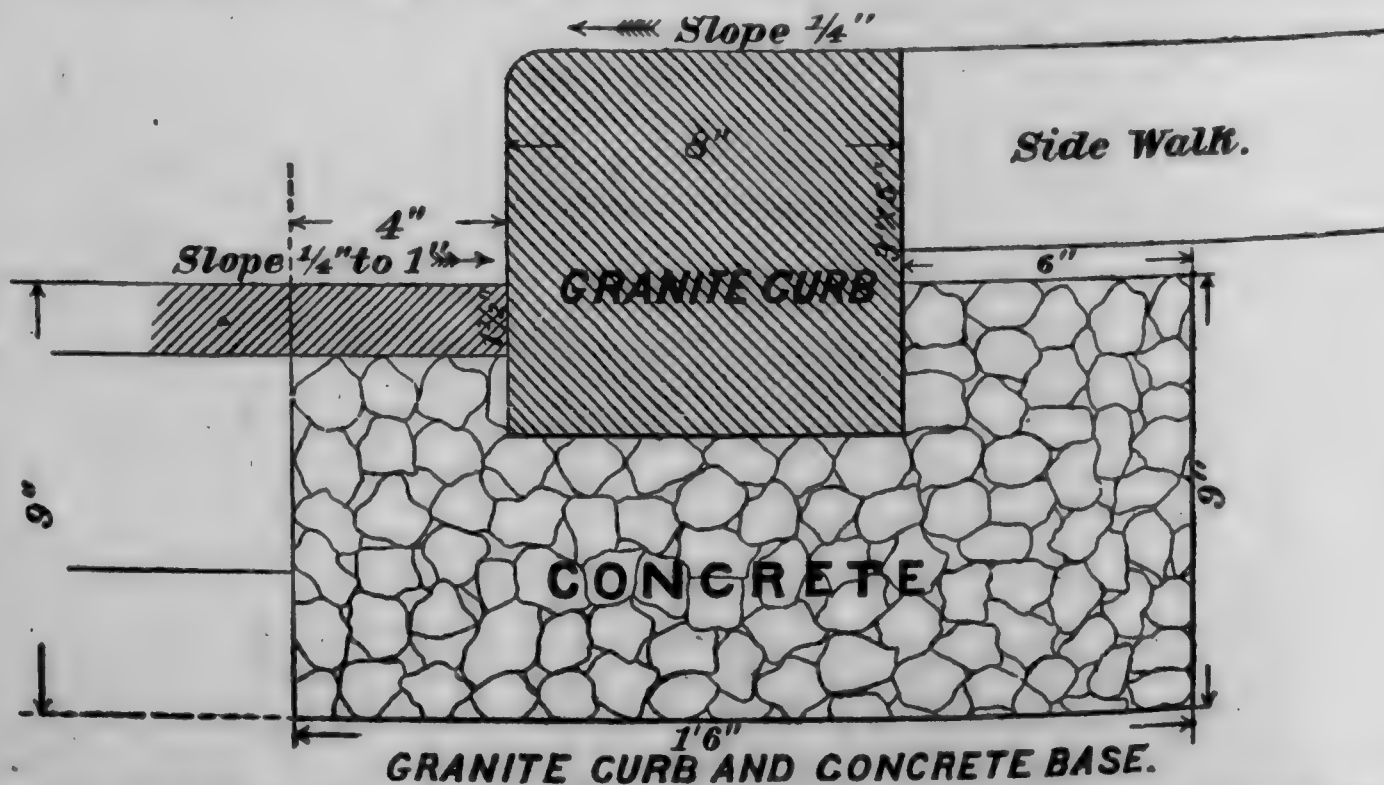
New curb will be furnished at the District property yards, and must be hauled to the street at the expense of the contractor.

The trench will be dug 24 inches deep and 18 inches wide, to permit of thorough ramming. A bed of gravel 4 inches deep will be laid in the bottom of the trench and thoroughly consolidated. On this bed the curb will be laid to level and grade, with close joints, and even and continuous surfaces.

The ditch will then be filled with gravel, the first filling to be not more than 3 inches deep, be well rammed by rammers on bars, so as to give the curb a solid bearing under its entire length. Other layers will then be rammed in the ditch to within 10 inches of the top of the curb; the layers of each ramming to be not more than 4 inches deep.

#### SPECIFICATIONS FOR SPECIAL GRANITE CURB.

The special granite curb will be laid on a foundation of hydraulic concrete, as shown by the following drawing:



The bed will be prepared as prescribed for carriage-way pavements, and must be at least 6 inches deep under the curb. On this bed the concrete foundation will be laid as prescribed for concrete base for standard asphalt pavements.

The curb will be laid before the concrete has set, so that it can be settled to a firm bearing and brought to proper grade.

If so desired, the contractor will be authorized to finish the foundation in front of the curb with a layer of binder as prescribed for the intermediate course in coal-tar distillate pavements, but no extra allowance will be made for such work.

#### BRICK GUTTERS.

The gutters will be constructed of vitrified bricks on a concrete base similar to that under the asphalt surface.

The bricks will be set at right angles to the curb, grouted with hydraulic cement, and toothed into the asphalt surface. The bricks will be bedded in a dry mixture consisting of 2 parts of sand and 1 part cement.

The average width of the gutter will be about 2 feet; payment will be made on basis of average width.

A similar construction, of granite block or vitrified brick, to that described for the gutters may be used adjacent to railroad tracks. The base will in that case extend to the bottom of the cross-ties and the average width of the brick paving will be about 19 inches.

The bricks will be furnished the contractor at the District property yards, and must be hauled to the work at his expense.

#### LAYING COBBLE GUTTERS AND CROSSINGS.

(1) The cobblestone and flagging will be furnished by the District on the line of work. This material will generally be furnished from other streets under improvement, but in case this can not conveniently be done the contractor will bid a price for hauling such material to his work.

(2) The material necessary to be removed will be excavated to a depth of 12 inches below the top line of the proposed gutter or crossing when fully packed. Any objectionable or unsuitable material below the bed will be removed and the space filled with clean sand or gravel.

(3) All holes or inequalities will be filled to a proper level with sand or gravel well compacted by rolling or ramming. Upon the foundation thus prepared will be laid a bed of gravel, 5 inches in thickness, thoroughly compacted by rolling or ramming. Upon this will be spread a layer of clean, sharp sand, to serve as a bed for the paving stones, of such depth as may be required to bring the work to grade.

(4) The cobblestones will be assorted as they are brought upon the ground, and no stones that are less than 4 or more than 6 inches long or less than 2 or more than 4 inches wide will be used, and the several sizes will be laid so as to make an even surface when rammed. When thus laid the stones shall be immediately covered with clean, fine sand, in proper quantities, and raked until the joints become filled therewith; the stones shall then be thoroughly rammed to a firm, unyielding bed, with a uniform surface and proper grade.

#### MACADAM ROADWAY.

(1) Macadam pavements will be 12½ inches thick when fully compressed, and will be laid in three courses, the two lower courses each being 6 inches thick when compressed, and the top course one-half inch.

(2) The space over which the pavement is to be laid will be excavated to the depth of 12½ inches below the top line of the proposed new pavement when fully compressed. Should there be any spongy material or vegetable matter in the bed thus prepared, all such material will be removed and the space filled with clean gravel or sand. Care must be taken in excavating to preserve the proper crown parallel to the surface of the street when completed; all holes and inequalities to be filled to a proper level with sand or gravel only, such filling to be well and faithfully compacted by rolling, and the entire roadbed will be thoroughly compacted by rolling with 5-ton roller so as to present a smooth and regular surface.

(3) On this bed the metal for the first course will be spread in a uniform layer of such thickness as to give a depth of 6 inches when thoroughly compacted. This layer will then be compacted by rolling, and ramming in such places as the roller can not reach; the roller will either be a steamroller or horseroller, its weight being not less than 5 tons, and its width such that the weight per inch of run will not be less than 160 pounds. The District will furnish, if desired, a suitable roller weighing about 10,500 pounds, made of iron with grooves, and requiring five or six horses for its proper use, according to grade. The rolling will be continued until the stone ceases to sink under the roller, or to creep in front of it; the amount of rolling will not be less than ten hours to each 1,000 yards of surface.

(4) The second course of metal will be spread on the first course in a uniform layer of the same depth as before, and, after being thoroughly wet, either by hose or a



sprinkling cart, will be rolled and rammed in precisely the same manner and to the same extent as the first course.

(5) The size of metal in the first and second courses will be such that it will pass through a ring  $2\frac{1}{2}$  inches in diameter, *i. e.*, the largest dimensions of any stone must not exceed  $2\frac{1}{2}$  inches, the smallest dimension to be not less than 1 inch. Any stone larger than this will be absolutely rejected, and must be either removed from the street or rebroken to proper size by the contractor. The material for the top course will be of clean gravel, varying in size from one-eighth to three-fourths of an inch in their largest dimensions, or it may be composed of the finer particles of stone obtained by screening the stone for the lower courses.

These particles of stone will be of the same size as the gravel above mentioned. If so ordered by the Engineer Commissioner, the material for the top course may have mixed with it such a proportion of loam or binding material as he may direct. All gravel for the top course larger than that specified shall be removed from the material before it is hauled to the street. Stone dust will not be used for a top course.

(6) The material for the top course will be spread upon the second course in a uniform layer 1 inch in thickness, and after being thoroughly wet by means of a hose or sprinkling cart, will be rolled and rammed in the same manner and to the same extent as the first and second courses.

(7) The stone for the first and second courses must be of hard and compact texture and uniform grain. Blue rock (gneiss), trap, flint, granite, flint (quartz), and the harder varieties of limestone will be accepted. Bidders will submit with their bids samples of the stone which they propose to furnish, and all stone which does not equal the sample in quality and size will be rejected. The stone must have on all sides a rough surface obtained by fracture. Water-worn pebbles and broken cobblestones will be rejected. The stone preferred is the harder variety of compact gneiss found on certain portions of Rock Creek, Piney Branch, Broad Branch, and other streams north of the Boundary. Disintegrated and weather-worn stones from the surface of the quarry will not be accepted.

#### SPECIFICATIONS FOR TELFORD MACADAM ROADWAY.

(1) *Material*.—The stone for the foundation of the pavement shall be sound, hard, and durable quarry stone, each from 6 to 8 inches in depth, from 3 to 6 inches in width, and from 6 to 14 inches in length, and of a sufficiently uniform size to be acceptable.

(2) The roadbed shall be prepared as prescribed for Madacam pavement, except that the bed shall be 14 inches below the surface of the finished roadway.

(3) The foundation stones shall be laid by hand in the form of a close, firm pavement. They shall be set on their broadest edges lengthwise across the road. All the projections and irregularities of the upper part of the pavement shall be broken off with a hammer. The spalls or chips, together with broken stone or screened gravel, shall then be spread on the base in sufficient quantity to fill all irregularities and present an even surface, with the required thickness. The base shall then be thoroughly rolled. The stone foundation must be in a compact and satisfactory condition in every respect at the time of the spreading of the broken stone.

(4) On this shall be spread a layer of Macadam to such a depth as will make a thickness of 5 inches when thoroughly compacted. This layer shall be composed of material of the same size and quality as is prescribed for Madacam roadways, and shall be rolled in the same manner and for the same length of time.

(5) The top layer shall be composed of the same materials, shall be laid in the same manner, and rolled in the same way and for the same length of time as is prescribed for macadam roadways.

(6) The roadway, when completed, shall be at each point of such construction and at least of such depth as required by the specifications and of such crown and form of gutter as shall be directed, and in any case the thickness of the pavement is to be determined on a line at right angles to the grade and crown.

(7) The metal for Macadam must be clean and free from dust, spalls, etc.

#### GRAVEL ROADWAY.

(1) The roadway of the street or road upon which the gravel is to be laid will be dressed to an even surface, sloping from the center to the lines of the curbs. This surface will be 9 inches below the top of the curbs at the center and 12 inches below the top of the curbs at the edge of the gutter, and thoroughly rolled with roller weighing at least 5 tons.

(2) Where there is no inspector appointed for this special work, twenty-four hours notice must be given to the Engineer Commissioner that the roadbed is ready for inspection. The entire space between two streets must be prepared for inspection.



before such notice is given. No gravel will be laid on the roadbed until such inspection is made.

(3) Upon the bed, thus prepared, the gravel will be laid of such thickness that when thoroughly rolled it will be 10 inches deep at the center and 8 inches at the sides, and rounded from side to side. It will be laid in two equal layers, and each layer will be rolled with a roller weighing not less than 5 tons until the gravel is thoroughly packed and has a firm, even surface. The amount of rolling necessary for this is about ten hours for every thousand yards of surface for each layer.

(4) The gravel must be free from loam. No stone in the bottom layer shall be of larger dimensions than  $2\frac{1}{2}$  inches. No stone in the top layer shall be of larger dimension than  $1\frac{1}{2}$  inches.

#### CULVERTS AND RETAINING WALLS.

Culverts are to be built and extended and retaining walls constructed wherever required.

The ground to be occupied by culverts and retaining walls shall be cleared of all loose and spongy material down to a firm foundation. Terra-cotta pipes, when used, are to be laid in and covered with hydraulic-cement concrete, according to the drawings on file in the office of Engineer Commissioner.

Brick and stone masonry culverts are to be laid in hydraulic-cement mortar on concrete foundation, in a thorough and workmanlike manner. Bricks are to be used of the best quality of hard-burned bricks. Stone is to be of a good quality of sound, acceptable building stone. All masonry to be laid with full mortar joints and well bonded.

Cement mortar will be composed of one part of fresh ground hydraulic cement and two parts of clean, sharp sand, thoroughly mixed immediately before using.

Concrete will be composed of mortar mixed as above and five parts of sound, hard, clean stone, the whole to be thoroughly mixed immediately before using and well rammed when placed in position.

All materials except cement and terra-cotta pipes are to be furnished by the contractor.

Pipes will be furnished to the contractor at the nearest property yard, and cement at the District cement house, and hauled to the work by the contractor. The cost of this material will not be charged against the contractor.

#### SPECIFICATIONS FOR ASPHALT PAVING BLOCKS AND TILES.

##### ASPHALT PAVING BLOCKS.

- (1) The size of the blocks will be 4 by 5 by 12 inches, and a variation of one-fourth of an inch from these dimensions will be sufficient grounds for rejecting any block.
- (2) Blocks must be square and true on edges. Chipped and rough-edged blocks will be rejected.
- (3) The blocks will be composed of paving cement, 11 to 15 per cent; crushed limestone, 89 to 85 per cent, of which about 50 per cent shall be coarser than 20 meshes to the inch.
- (4) The paving cement will be an admixture of refined Trinidad asphalt with the residual oil obtained from the distillation of petroleum. No product of the distillation of coal tar will be permitted. The right is reserved to inspect the manufacture of the blocks at any time.
- (5) The blocks must be equal to any ever laid in the District and satisfactory in every respect to the Engineer Commissioner.

##### ASPHALT PAVING TILES.

- (1) The materials composing the tiles will be the same as for asphalt paving blocks.
- (2) The tiles will be of two sizes, square 8 by 8 by 2.5 inches and hexagonal 4.64 inches on the side and 8 inches between parallel sides and 2.5 inches thick.
- (3) Tiles must conform to specifications for blocks in all particulars excepting size.

#### SPECIFICATIONS FOR VITRIFIED BRICKS.

The bricks to be furnished must possess such qualities in regard to hardness, toughness, and durability as to especially fit them for use in paving streets, gutters, alleys, etc.

Bricks will be thoroughly hard, well and uniformly burned, and free from warps and fire cracks. Surfaces must be true and corners square. No beveled brick will be accepted.

Twelve samples must accompany each proposal, and all bricks delivered will be strictly held to conform to such sample.

Samples and deliveries will be subjected to such tests as may be prescribed by the Engineer Commissioner, and the results of such tests will be considered in awarding contract.

Bids will be considered for both the ordinary and repressed brick, and the Commissioners reserve the right to decide how many, if any, of each kind will be required.

The sample of the successful bidder will be adopted as the standard, from which the following deviation will be allowed: Length, three-eighths inch; width, one-eighth inch; thickness, one-eighth inch. The contractor will be required to sort and pile separately all consignments where the sizes vary. Should the bricks furnished average in size less than the sample specimen, a corresponding deduction will be made in payments.

#### SPECIFICATIONS FOR PAVING BRICKS.

These should be of best quality, with clear ring, without flaws or cracks, burned hard entirely through, straight edged, of compact texture, and regular and uniform in shape and size. Bricks which, after being thoroughly dried and then immersed in water twenty-four hours, absorb more than 16 per cent in volume of water, may be rejected. The bricks must be satisfactory in every respect to the Engineer Commissioner, and subject to his acceptance or rejection. Each bidder will submit twelve sample bricks; six of them will be kept in the engineer office, and all deliveries must conform thereto.

Bids will be received for delivering the total number of paving bricks required during the year, or any smaller number, not less than 25,000 per month.

#### SPECIFICATIONS FOR GRANITE CURB.

##### 6 BY 20 STANDARD GRANITE CURB.

The curb must be of good and acceptable texture and color, dressed straight down 12 inches on face, 3 inches on back, and chiseled 6 inches deep on joint, with no projection beyond the chiseled portion of the joint. The joints must be perfectly close fitting, cut at a true right angle to face and top. Joints which are at all open will not be accepted. The top will be beveled one-quarter of an inch. The face and top to be true plane surfaces, without bends, twists, depressions, cups, or other irregularities. The face must be cut to a perfectly true line, to be tested with a straight-edge. The angle between face and top to be well defined. The length must not be less than 6 nor more than 12 feet; depth not less than 20 nor more than 24 inches in any portion of a piece. The bed of the curb must not be less than 6 inches. No excessive protuberances on sides will be allowed.

##### SPECIAL 8 BY 8 GRANITE CURB.

The same specifications for special 8 by 8 curb will hold as above given for standard 6 by 20 curb, with the exception of dimensions and bed, which will be as follows: Width, 8 inches; depth, not less than 8 nor more than 10 inches. The bed will be rough dressed, to give a secure bearing.

#### CIRCULAR CURB.

Circular curb will conform in all respects to the above specifications, except as to lengths. By far the larger amount of circular curb will be cut to 6-foot radius in lengths of 4 feet 8½ inches, but the contractor must be prepared to cut to such radius and in such lengths as may be required.

#### SAMPLES.

Each bidder must submit a sample of his stone not less than 2 feet long, and all deliveries must conform to this sample.

#### SPECIFICATIONS FOR GRANITE PAVING BLOCKS.

(1) The blocks may be of any syenite or granite equal in quality to what is known as Quincy granite, of uniform fine grain and texture, without lamination or stratification, and free from excess of mica or feldspar. Soft or weather-worn stones from the surface of the quarry or stones that will wear smooth under traffic will not be accepted.

(2) The blocks must be of the following dimensions, viz: In length, not more than 8 nor less than 6 inches; in width, not more than 4 nor less than 3 inches; in depth, not more than 6 nor less than 5½ inches, and the average size shall be such that not more than 42 shall be required to lay a square yard of pavement. They must be sufficiently dressed to present rectangular faces, with straight edges on top, bottom, and sides, and all blocks whose faces vary more than half an inch from a rectangular shape will be rejected. The sides and ends of the blocks must be so dressed that they will make close-fitting joints, and any block which has a greater projection than half an inch will be rejected. Should block be delivered which run more than 42 to the yard, a corresponding deduction will be made in payment.

## REPORT OF THE CHIEF CLERK, ENGINEER'S OFFICE.

OFFICE OF THE ENGINEER COMMISSIONER, DISTRICT OF COLUMBIA,  
Washington, D. C., August 31, 1892.

SIR: I have the honor to submit the following statement of clerical work performed in your office during the fiscal year which ended June 30, 1892:

Communications received, briefed and entered.....	7,310
Indorsements, references and reports on above.....	36,550
Letters and orders prepared.....	6,758
Copies of contracts drawn .....	648
Vouchers and bills prepared and forwarded in triplicate.....	3,580

Very respectfully,

JOHN WALKER,  
Chief Clerk, Engineer's Office.

Capt. WILLIAM T. ROSSELL,  
Corps of Engineers, U. S. A.,  
Engineer Commissioner of the District of Columbia.

## STATEMENT OF CONTRACTS FOR CONSTRUCTION MATERIAL.

Contract.	Date.	Contractors.	Description.
	1891.		
1477	June 30	J. T. Summers .....	1,500 cubic yards of sand.
1478	June 30	do .....	1,000 cubic yards of coarse sand.
1482	June 29	Ivy City Brick Co .....	190,000 paving bricks.
1486	July 7	J. T. Summers .....	10,000 cubic yards of sand.
1516	July 14	J. G. & J. M. Waters .....	25,000 barrels of natural cement.
1517	July 14	A. Lamond .....	7,350 terra-cotta invert blocks.
1528	July 22	C. G. Smith & Son .....	Broken stone.
1534	July 23	T. Somerville & Sons .....	Terra-cotta pipe.
1540	Aug. 3	McMahan, Potter & Co. ....	464,000 vitrified bricks.
1541	July 25	do .....	Terra-cotta pipe.
1542	July 28	Jackson, Jones & Co. ....	1,200 barrels of Portland cement.
1545	July 30	John Burns .....	Blue-stone trap frames and covers.
1549	July 31	E. L. Dent .....	50 fire hydrants.
1551	July 29	Freeman Fire Clay Co. ....	Terra-cotta pipe.
1554	Aug. 10	Washington Brick Machine Co .....	3,500,000 paving bricks.
1555	Aug. 11	Potomac Terra Cotta Co. ....	Terra-cotta pipe.
1556	Aug. 18	Maryland Pavement Co .....	100,000 asphalt tiles.
1557	Aug. 20	J. M. Mack .....	1,200,000 vitrified paving bricks.
1558	Aug. 15	American Sewer Pipe Co .....	Terra-cotta pipe.
1559	July 25	J. B. Lord .....	250 yards screened sand.
1575	Sept. 15	The Ivy City Brick Co .....	300,000 sewer bricks.
1579	Sept. 15	D. S. B. Chew .....	100 fire hydrants.
	1892.		
1620	Feb. 11	J. M. Mack .....	800,000 repressed vitrified bricks.
1626	Apr. 11	Stillwell Manufacturing Co. ....	6-inch 3 and 4-way water valves.
1627	Apr. 11	Fred Stone & Co. ....	6-inch 2-way water valves.
1628	Apr. 13	National Pipe and Foundry Co .....	Cast-iron pipe and special castings.
1633	May 17	J. M. Mack .....	500,000 vitrified paving bricks.
1634	May 16	C. G. Smith & Son .....	1,000 cubic yards of broken stone.
1635	May 18	M. F. Talty .....	400 cubic yards of broken stone.
1636	May 16	McMahan, Porter & Co. ....	300,000 vitrified repressed paving brick.
1637	May 19	The Maryland Pavement Co. ....	180,000 hexagon asphalt tiles.



## 628 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## STATEMENT OF SUPPLY CONTRACTS FOR FISCAL YEAR 1892.

Contract.	Date.	Contractors.	Description.
	1891		
1475	July 1	H. I. Gregory .....	Tinware.
1481	July 2	W. M. Galt & Co .....	Forage.
1483	July 3	R. J. Kennedy .....	Fuel.
1484	July 3	Judd & Detweiler .....	Blank forms and printing.
1485	July 3	Royce & Marean .....	Telegraph and telephone supplies.
1487	July 6	Scheller & Stevens .....	Drugs.
1488	July 8	E. G. Wheeler .....	Hardware.
1489	July 8	do .....	Glass, paints, and varnish.
1490	July 8	do .....	Plumbers materials.
1491	July 8	do .....	Telegraph and telephone supplies.
1492	July 8	Ramsey & Bisbee .....	Blank forms and printing.
1493	July 9	B. Rich & Son .....	Dry goods.
1494	July 9	do .....	Boots and shoes.
1495	July 9	Frank Hume .....	Groceries.
1497	July 9	W. T. Galliher & Bro. ....	Lumber.
1498	July 9	C. T. Garter & Co. ....	Hardware.
1499	July 9	J. H. Chesley & Co. ....	Do.
1500	July 9	Lansburgh & B. Co. ....	Dry goods.
1501	July 10	G. Rynear, jr. ....	Glass, paints, and varnish.
1502	July 10	do .....	Stationery.
1504	July 10	H. McShane .....	Plumbers' material.
1505	July 10	J. A. Baker .....	Do.
1506	July 10	F. P. May & Co. ....	Hardware.
1508	July 10	E. L. Kengla .....	Fresh meat and corn beef.
1509	July 13	W. H. Butler .....	Glass, paint, and varnish.
1510	July 13	J. H. Buscher .....	Fresh beef.
1512	July 10	B. S. Adams .....	Blank forms and printing.
1513	July 10	W. J. C. Dulaney .....	School books.
1514	July 10	do .....	Stationery.
1515	July 14	Independent Ice Co .....	Ice.
1518	July 14	J. B. Bryan & Bro .....	Groceries.
1519	July 16	McGill & Wallace .....	Blank forms and printing.
1520	July 17	Z. D. Gilman .....	Drugs.
1521	July 16	R. Leitch & Sons .....	Plumbers' materials.
1522	July 16	C. Becker .....	Saddlery.
1523	July 16	Hugh Reilly .....	Glass, paints, and varnish.
1524	July 18	W. M. Galt & Co. ....	Groceries.
1527	July 17	Libbey, Bittinger & Miller ..	Lumber.
1529	July 21	F. Stone & Co. ....	Plumbers' material.
1537	July 24	Wm. Ballantyne & Son .....	Stationery.
1538	July 24	do .....	School books.
1548	July 30	J. E. Chapman .....	Fuel.
1561	Aug. 30	J. L. Barbour & Son .....	Groceries.
1569	Sept. 1	Wyckoff, Seamans & Benedict ..	Stationery.
1573	Sept. 2	W. J. C. Dulaney .....	School readers, slates, etc.
1578	Sept. 15	Wm. Ballantyne & Son .....	Do.
1599	Nov. 4	W. B. Moses & Sons .....	Furniture.

## TABULAR STATEMENT OF MISCELLANEOUS CONTRACTS.

Contract.	Date.	Contractor.	Description.
	1891		
1474	July 1	H. I. Gregory .....	Furnish and set Smead's heating and ventilating apparatus and dry-closet system in school on Seventh street between F and G streets NE.
1507	July 1	Nicolai Bros .....	Furnish lamps and illuminating material, light and maintain oil lamps for 3 years from July 1, 1891.
1533	July 22	G. W. Knox .....	Haul cast-iron pipe, castings, etc.
1543	July 29	J. M. Dunn .....	Construct four-room brick school building in Brookland.
1544	July 29	.....do .....	Construct two-story and basement school building corner of Seventh and G streets NE.
1562	Aug. 22	The Globe Furniture Co. ....	Furnish school furniture.
1563	Aug. 4	J. R. Young .....	Construct police station and stable on Q street between Thirty-second and Thirty-third streets NW.
1564	Aug. 31	U. S. Electric Lighting Co. ..	Furnish and maintain electric street lighting.
1568	Aug. 27	The School Furnishing Co. (Bloomsburg, Pa.)	Furnish school furniture.
1572	Sept. 3	J. H. Howlett .....	Construct a two-story and basement school building on southeast corner Third and G streets NE.
1574	Sept. 10	R. Horn .....	Haul bricks.
1576	Sept. 7	Grand Rapids School Furniture Co.	Furnish school furniture.
1577	Sept. 14	Washington Gas Light Co. ..	Erect, supply gas, and maintain street lamps in Washington.
1580	Sept. 23	Georgetown Gas Light Co. ..	Erect, supply gas, and maintain street lamps in Georgetown.
1583	Sept. 22	A. D. Neeld .....	Construct bridge over Eastern Branch on line of Benning's Road.
1585	Oct. 2	Andrew Gleeson .....	Grade, set curb, and lay granite block pavement where ordered.
1587	Oct. 6	P. Maloney .....	Grade, set curb, and lay asphalt block pavement where ordered.
1588	Oct. 30	Clapp, Jones Manufacturing Co.	Furnish steam fire engine.
1590	Oct. 6	C. Burlew .....	Lay and put down cement sidewalks where ordered.
1591	Oct. 10	H. I. Gregory .....	Furnish improved Smead heating apparatus and dry-closet system.
1592	Oct. 13	Barber Asphalt Paving Co. ..	Lay asphalt pavement where ordered, under permit system.
1594	Oct. 29	J. R. Young .....	Construct brick addition to Washington Asylum.
1600	Nov. 14	T. P. Morgan .....	Dredge basin foot of Canal street SE.
1601	Nov. 19	Potomac Carbonized Cement Stone Co.	Lay carbonized cement stone block pavement where ordered.
1602	Nov. 19	Cranford Paving Co. ....	Lay cement and asphalt pavements where ordered.
1603	Nov. 20	H. J. McLaughlin .....	Lay granolithic pavements where ordered.
1604	Nov. 23	G. Drew & Son .....	Lay cement pavements where ordered.
1605	Nov. 24	H. I. Gregory .....	Furnish and place in position street designations.
1608	Nov. 30	P. R. Pulman .....	Lay cement pavements where ordered.
1612	Dec. 10	H. I. Gregory .....	Furnish 500 street signs for suburban villages.
	1892		
1617	Jan. 21	Schillinger Paving and Curbing Co.	Lay cement pavements where ordered.
1618	Jan. 21	B. W. Clark .....	Remove garbage.
1623	Mar. 28	Wheeler Reflector and Light Co.	Furnish 500 street lanterns.
1624	Apr. 4	Youngstown Bridge Co. ....	Construct steel plate girder bridge over James Creek Canal at K street SW.
1625	Apr. 17	W. C. Peake .....	Paint 6,700 lamp posts and lanterns.
1630	May 10	P. R. Pulman .....	Lay and put down cement pavement on sidewalks.
1631	May 12	R. V. Rusk .....	Furnish teams for collecting garbage.
1632	May 13	Cranford Paving Co. ....	Lay and put down cement sidewalk.
1639	May 11	The Schillinger Curbing and Paving Co.	Lay and put down cement pavement on sidewalks.
1641	June 11	M. H. Ellis and A. Daggett..	Sprinkle, sweep, and clean streets and avenues.
1642	June 13	C. MacNichol and Son .....	Paint Woodley Lane Bridge.
1646	June 28	M. F. Talty .....	Grade Q street between First street and Eckington Place.

## 630 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## REPORT OF BOARD OF EXAMINERS OF STEAM ENGINEERS.

WASHINGTON, D. C., July 5, 1892.

GENTLEMEN: We have the honor to present to you the report of the board of examiners of steam engineers for the year ending June 30, 1892. The following table will show the work as it progressed during each month:

Date.	Meet-ings held.	Appli-cants re-ceived.	Appli-cants ap-proved.	Appli-cants not compe-tent.	United States license.	First class.	Second class.	Third class.
1891.								
July .....	5	14	14		1	2	3	8
August .....	4	13	12	1		3	3	6
September .....	8	15	9	6				9
October .....	9	15	14	1		2	2	10
November .....	8	7	5	2	1		2	2
December .....	8	7	7			2	3	2
1892.								
January .....	9	12	10	2		2	3	5
February .....	8	11	9	2		2	3	4
March .....	9	23	19	4		2	4	13
April .....	9	11	9	2		1	2	6
May .....	9	16	14	2		3	7	4
June .....	6	11	7	4		2	1	4
Total .....	92	155	129	26	2	21	35	73

Most respectfully,

J. H. WILKERSON, *Chairman,*  
H. BOESCH, *Secretary,*  
DANL. JOHNSON,  
*Board of Examiners.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

## REPORT OF THE INSPECTOR OF BOILERS.

WASHINGTON, D. C., July 12, 1892.

GENTLEMEN: I have the honor to make the following report of my office for the fiscal year ending June 30, 1892:

Fee boilers inspected .....	551
Boilers inspected for District of Columbia .....	13
Total .....	564
New boilers erected .....	45
Boilers condemned for repairs .....	17
Boilers condemned for new ones .....	3
Total fees received .....	\$2,745.00
Total expenses for the year .....	1,156.50
Balance .....	1,588.50

Fees still due for inspecting 6 boilers.

No fee for District of Columbia work.

Expense for the year ending June 30, 1893, will estimate \$1,200.

I would most respectfully state that the past fiscal year was one of success, as I have inspected more steam boilers than ever before, and I also find an improvement in steam plants generally.

For improving the condition of the office, I would most respectfully recommend to the honorable Commissioners the following: That an order be issued to all persons owning or using steam boilers within the District of Columbia that they be



required to notify the inspector of steam boilers at least five days prior to expiration of certificate of inspection of their boilers. This would give them time to have their boilers in good condition for inspection, and it would also be a great benefit to the inspector in the discharge of his duties.

I would further recommend that the police be required to visit all steam plants within the limits of District of Columbia at least twice a year to ascertain whether steam plants are properly supplied with a licensed engineer, and to report to the honorable Commissioners of the District of Columbia all persons found violating the engineers' license law of the District of Columbia.

Respectfully submitted.

J. H. WILKERSON,  
*Steam boiler inspector, District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

#### REPORT OF THE SURVEYOR OF THE DISTRICT OF COLUMBIA.

SURVEYOR'S OFFICE, DISTRICT OF COLUMBIA,  
*Washington, October 14, 1892.*

GENTLEMEN: I have the honor to transmit herewith a report of the affairs of this office during the year ending June 30, 1892:

During that period 1,043 orders for surveys were received and 287 subdivisions recorded. Investigation and report upon streets, alleys, and miscellaneous subjects, 20; surveys of lots, streets, and alleys, 10; recorded plats of dedication of parts of lots 69 and 70 for the purpose of widening and straightening Woodley road. Condemnation of right of way, Rock Creek intercepting sewer; condemnation of T street through land of Elizabeth Moore *et al.*; condemnation of T street through McLaughlin subdivision, Prospect Hill; plat of survey of boundaries of lands at the receiving reservoir; plat of widening of Sixteenth street from Florida avenue to Superior street; plat conveying land extension of Forty-third street, West Washington; plat of Massachusetts avenue extended from Rock Creek westward.

I beg leave to again call your attention to the condition of the older records of this office, which are fast disintegrating and going to decay, and which can not be replaced if once lost. In some instances the books have been in continuous use since 1809, and are badly worn and defaced. The books contain the current records of subdivisions, as well as the original dimensions of squares, and are therefore of inestimable value to the government of the District of Columbia, as well as the general public. In connection herewith I quote from my annual report of 1883:

"I recommend that an appropriation be asked for to have duplicate copies made of those records not already copied and the duplicates already made carefully compared and verified, so that they can receive the official certificate of the surveyor of the District of Columbia, attesting the correctness. This would give them official status, and in this way the original (which should only be used in cases of litigation) could be preserved for many years. The books have been rebound so often and in many instances the paper cut so close to the writing as not to allow any more to be cut therefrom without completely obliterating the official certificate.

To properly perform the work required in copying said records, I would suggest that an appropriation of \$2,600 per annum be asked for until the work is completed. This sum is necessary for the employment of a competent draftsman, at \$1,400, and a clerk, at \$1,200 per annum, to assist in the performance of the work generally and the verification of the copies."

I again respectfully renew request for an appropriation for binding and mounting on linen such records as can be saved in this manner, and for the purchase of additional files for their accommodation.

Very respectfully,

WM. FORSYTH,  
*Surveyor, District of Columbia.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

W.

**REPORTS OF SUPERINTENDENTS OF CHIMNEY SWEEPS.**

JULY 1, 1892.

The total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$16.45.

JAMES TWINE,  
*Superintendent of Chimney Sweeps.*

---

JULY 1, 1892.

Total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$299.40.

J. A. NELSON,  
*Superintendent of Chimney Sweeps.*

---

JULY 1, 1892.

Total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$69.91.

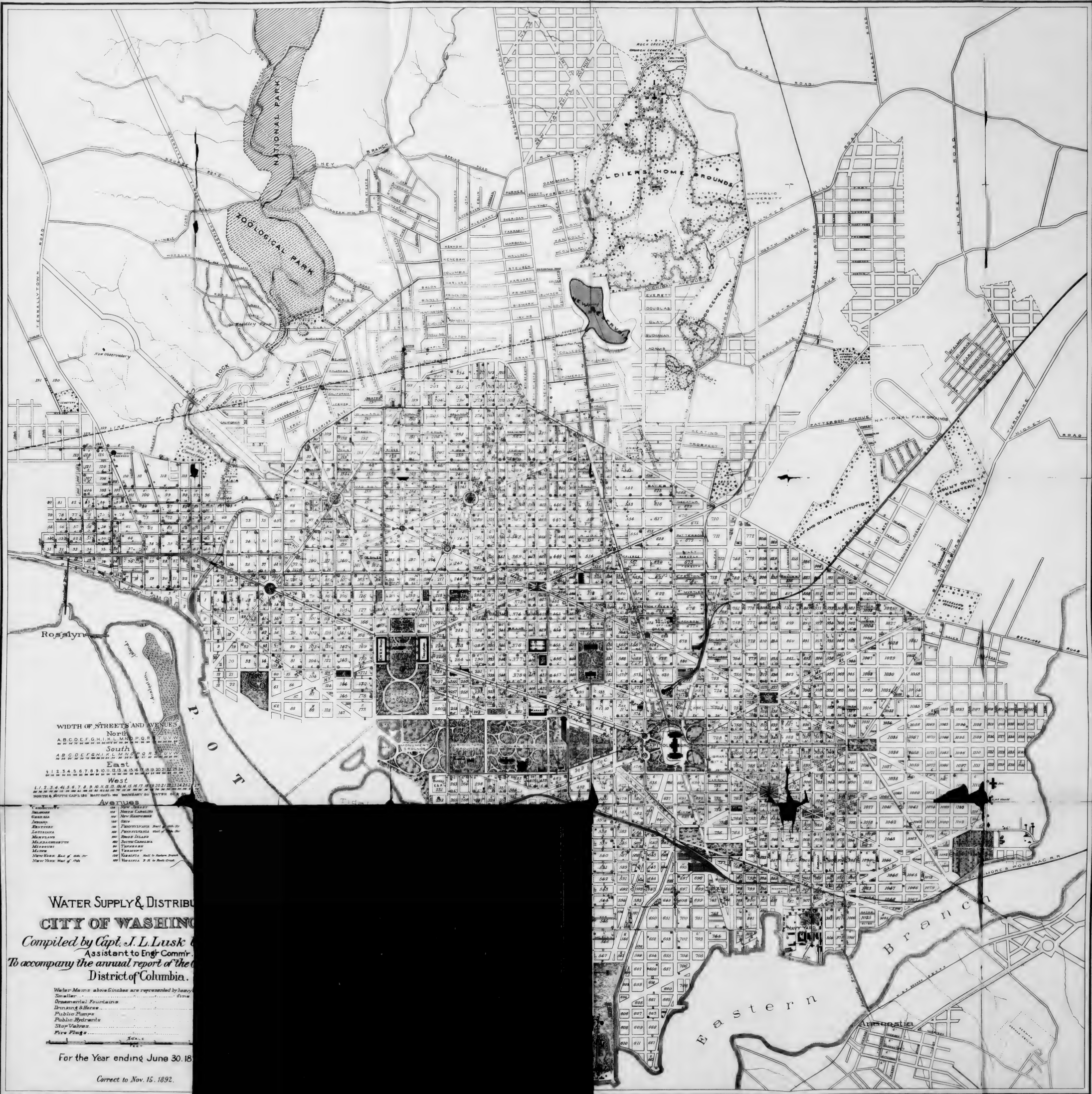
H. H. TURNER,  
*Superintendent of Chimney Sweeps.*











WIDTH OF STREETS AND AVENUES  
North  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
South  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
East  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
West  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

**WATER SUPPLY & DISTRIBUTION**  
**CITY OF WASHINGTON**  
*Compiled by Capt. J. L. Lusk*  
Assistant to Eng. Commr.  
To accompany the annual report of the  
District of Columbia.

Water Mains: above ground are represented by heavy lines  
Sewers: represented by thin lines  
Drinking & House Water Pipes: represented by thin lines  
Public Pumps: represented by small circles  
Public Hydrants: represented by small squares  
Fire Poles: represented by small triangles

For the Year ending June 30, 1892.  
Correct to Nov. 15, 1892.





WIDTH OF STREETS AND AVENUES  
North  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
South  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
East  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
West  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

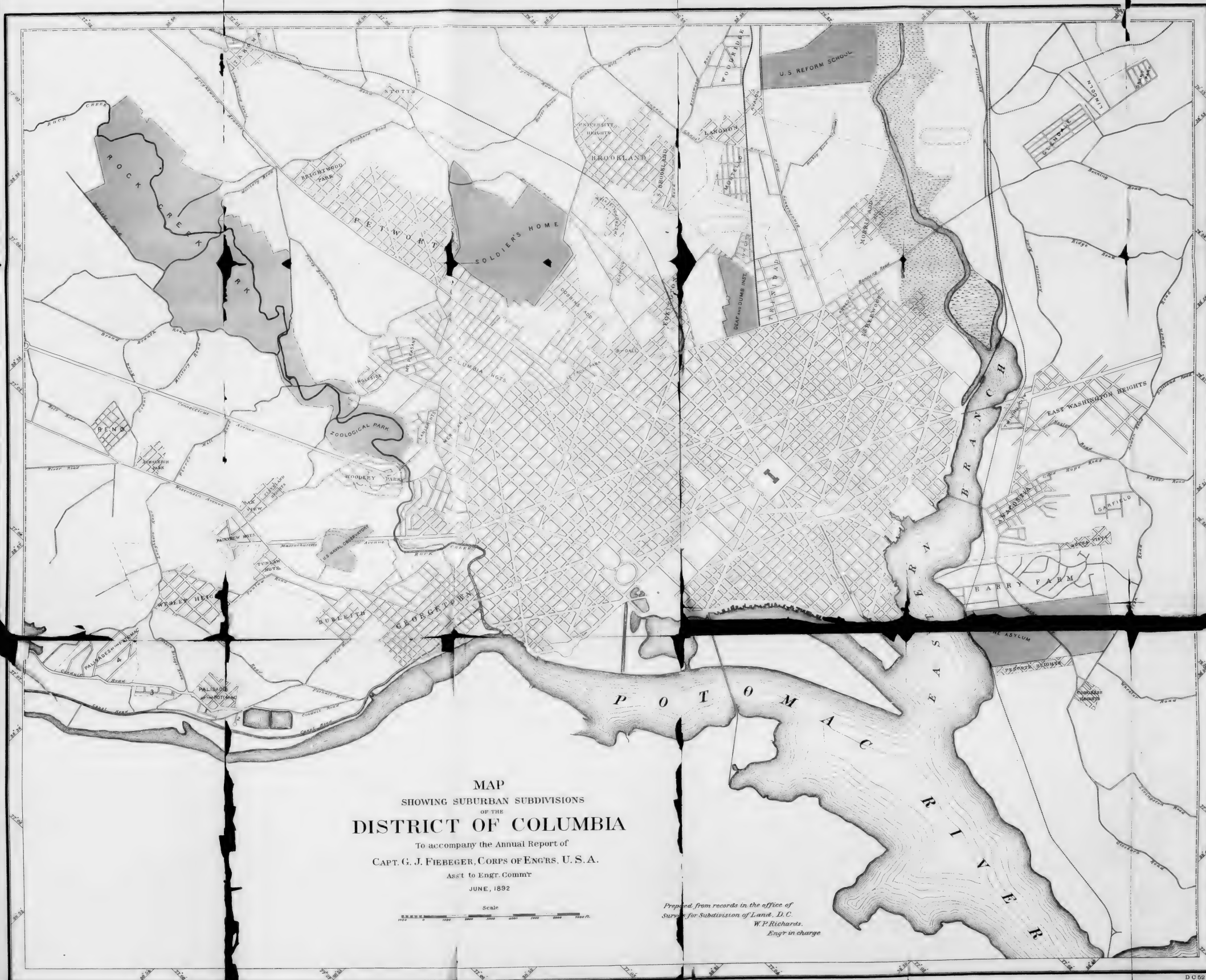
**UNDERGROUND CABLES**  
**CITY OF WASHINGTON**  
*Compiled by Capt. J. L. Lusk U.S. Engr's*  
*Assistant to Engr. Commr.*  
*To accompany the annual report of the Commissioners.*  
**District of Columbia.**

	MILES OF CONDUIT
U.S. Electric Lighting Co. shows thus	23 3/4
Chesapeake and Potomac Tel. Co.	13 7/10
Western Union Telegraph	1 3/4
Postal	2 3/4
U.S. Government	2 3/4
District	4 3/4

To Dec. 1st, 1892.







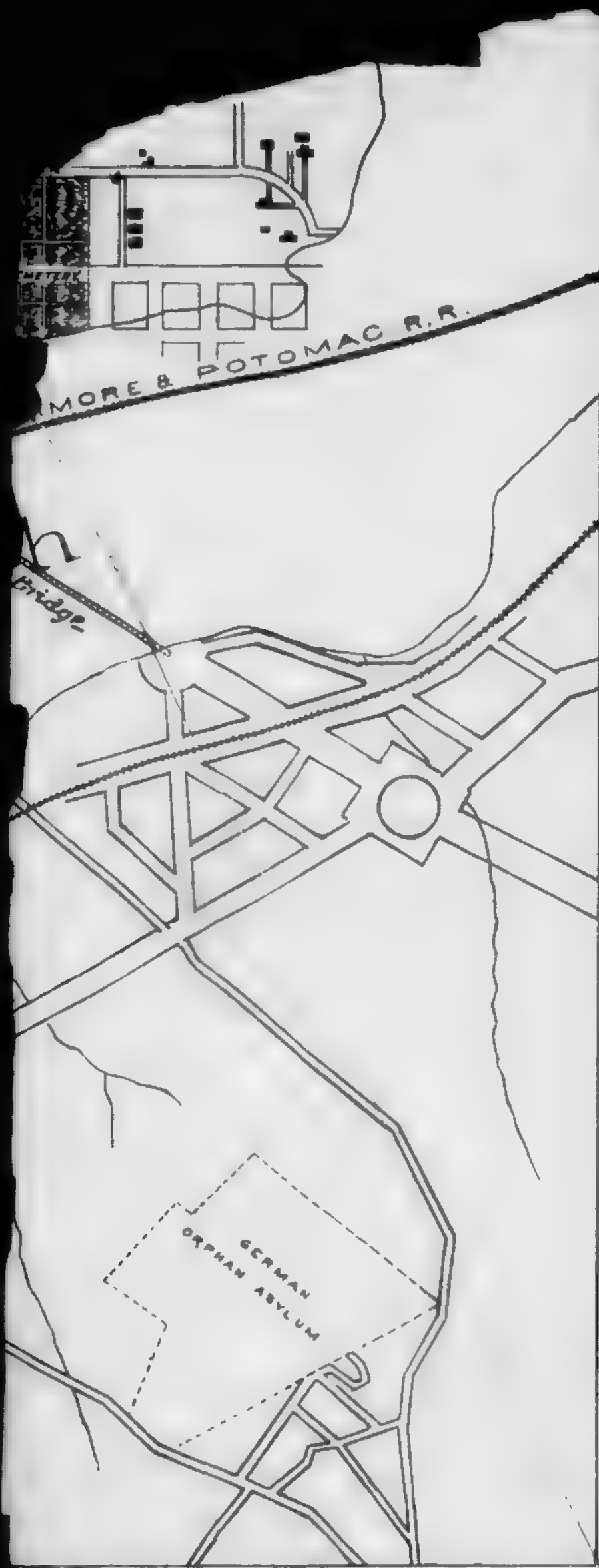
MAP  
SHOWING SUBURBAN SUBDIVISIONS  
OF THE  
**DISTRICT OF COLUMBIA**

To accompany the Annual Report of  
CAPT. G. J. FIEBEGER, CORPS OF ENGRS, U. S. A.

Asst to Engr. Commr  
JUNE, 1892

Scale  
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 ft.

Prepared from records in the office of  
Survey for Subdivision of Land, D. C.  
W. P. Richards.  
Engr in charge



DC 52 2



W.

**REPORTS OF SUPERINTENDENTS OF CHIMNEY SWEEPS.**

JULY 1, 1892.

The total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$16.45.

JAMES TWINE,  
*Superintendent of Chimney Sweeps.*

---

JULY 1, 1892.

Total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$299.40.

J. A. NELSON,  
*Superintendent of Chimney Sweeps.*

---

JULY 1, 1892.

Total receipts for sweeping and cleaning chimneys during the fiscal year ended June 30, 1892, were \$69.91.

H. H. TURNER,  
*Superintendent of Chimney Sweeps.*

X.

REPORT OF PROPERTY CLERK.

PROPERTY CLERK'S OFFICE,  
Washington, D. C., November 5, 1892.

GENTLEMEN: In accordance with your request I have the honor to submit herewith a brief statement of the operations of the office of the property clerk ending June 30, 1892, with recommendations, with the object of increasing its efficiency. In the first place, the efficiency of the office would be increased by the addition of one more employé, for which I have asked in my former reports, and for increases in the compensation of the two employés who are now connected with the office. This office is a sort of intelligence office, to which papers and persons are sent for information. My time is mostly taken up by clerical work in the office, when I should be looking after the delivery and receipt of goods purchased. All supplies for the District are purchased by me through contract or in open market, and by being able to personally oversee the purchases, I am able to get goods at much lower prices than I would otherwise. I am confident that I have saved to the District many hundreds of dollars by judicious purchasing of various articles of supplies. The appropriations from year to year are increased. Consequently more purchases are made. The city grows, and the needs increase proportionately. All requisitions for supplies pass under my inspection; are briefed and forwarded to the Commissioners for approval. Upon approval, I make purchases. Bills for goods purchased are submitted to me for inspection and approval, when they are briefed and prepared for forwarding to the auditor for payment. The number of requisitions made upon this office for supplies, etc., was 3,442, an increase over the previous year of 30 per cent. The number of orders given for supplies was 8,000, an increase over the previous years of 20 per cent. The number of vouchers examined, approved and forwarded to the auditor for payment was 5,126, an increase over the previous year of 10 per cent. So you see by the above that the labors of the office are increasing from year to year, with no increase of clerical help. Consequently, I am unable to make such an elaborate report showing the number of each of every kind of supplies purchased, and the disposition of the same as I could wish. Below you will find schedule of prices paid for supplies under contract. I urgently request that the compensation of the employés of this office be arranged to read as follows, viz:

	Per annum.
One property clerk.....	\$1, 600
One bookkeeper and order clerk .....	1, 400
One invoice clerk .....	1, 200
One clerk (new) .....	1, 000
One messenger clerk .....	600

Making the compensation of the employés of this office \$5,800.

I am, very respectfully,

F. O. BECKETT,  
Property Clerk, District of Columbia.

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

**CLASS I.—Stationery.**

Books, memorandum:			Ink, Faber's violet black, copying, per quart	\$0.40
Sheep, indexed, 4½ by 6¾, 100 leaves, per dozen	\$1.50		Ink, Underwood's:	
Sheep, indexed, 4½ by 7¾, 100 leaves, per dozen	2.20		Everlasting bank writing fluid, per quart	.38
4½ by 7¾, 50 leaves, sheep, indexed per dozen	1.50		Combined writing and copying, cobalt, per quart	.55
4½ by 7¾, 100 leaves, sheep, faint rule, per dozen	2.00		Egyptian black fluid per quart	.35
4½ by 7¾, 50 leaves, sheep, faint rule, per dozen	1.38		Cobalt extra copying do.	.55
Books, time, 7¾ by 4½, full sheep, monthly, 50 leaves, per dozen	1.19		Egyptian school do.	.15
Books, letter copy:			Egyptian black combined writing and copying per quart	.42
500 pages, letter size, full sheep, per sample each	1.35		Carmine do.	1.10
700 pages, cap size, full sheep, per sample each	1.60		Ink, Carter's:	
1,000 pages, cap size, full sheep, per sample each	2.10		Copying and writing combined, per quart	.52
Books, scratch:			Crimson per quart	1.00
No. 4024 per dozen	.18		Writing fluid do.	.32
No. 4026 do	.25		Raven black (school) do.	.17
No. 4028 do	.35		French copying do.	.35
No. 4030 do	.48		Ink, Arnold's:	
No. 4046 do	.90		Fluid, genuine per quart	.36
No. 4068 do	1.80		Fluid, genuine per pint	.23
Bells:			Ink, Thomas' black, glass bottles, per quart	.32
Call, No. 3200 (Bradley & Hubbard's), each	.72		Ink, David's:	
Hand, No. 8, heavy (Barton's) brass, per dozen	4.75		Carmine, No. 4, glass stoppers, per dozen	3.25
Hand, large, No. 10 (Barton's) brass, per dozen	11.00		Blue per pint	.18
Baskets, office:			Blue black record per quart	.30
Large, telegram, No. 20-3, per dozen	4.50		Combined writing and copying, per quart	.32
Small, telegram, No. 20-2, do	4.40		Chemical writing fluid per quart	.28
Blotters, Moore's polished rosewood, large per dozen	4.25		Magic black (jet black school ink), per quart	.21
Bands, rubber, Faber's pure:			Raven's permanent black per quart	.28
No. 12, thread per gross	.10		Scarlet do	.70
No. 16, thread do	.12		Ink, Stafford's:	
No. 32, ¼-inch do	.38		Fluid, commercial per quart	.32
No. 33, ⅜-inch do	.42		Copying (machine) do	.52
No. 000, ¼-inch do	.63		Blue-black office, writing and copying combined per quart	.45
No. 0000, ¼-inch do	.71		Universal do	.32
No. 000, ⅜-inch do	.81		Carmine do	1.30
No. 0000, ⅜-inch do	.91		Ink, Barnes':	
No. 000, heavy, ¼-inch do	1.02		Jet black national per quart	.24
No. 0000, heavy, ¼-inch do	1.12		National writing fluid do	.24
No. 000, ⅜-inch do	1.42		National copying do	.38
No. 0000, ⅜ inch do	1.62		Writing and copying do	.32
Chalk:			National carmine do	.93
White per pound	.02		Ink:	
Red do	.10		Cochrane's red per pint	.55
Crayons, chalk, equal to New York Crayon Co.'s per gross	.05½		Papyrographic per bottle	.90
Envelopes, white:			Hektograph do	.22
No. 4, XXX per M	1.05		Color papyrographic do	1.25
No. 5, XXX do	1.18		Inkstands, bankers':	
No. 6, XXX do	1.30		No 50 per dozen	4.10
No. 9, XXX do	1.95		Double, No. 1 do	28.50
No. 10, XXX do	2.30		Single, No. 1 do	8.75
No. 11, XXX do	2.75		No. 60 do	.75
Envelopes, Irish linen, Baronial No. 1, Marcus Ward's per M	6.00		Inkstands, glass stoppers, No. 308, 3-inch, per dozen	1.60
Erasers:			Ink vents, perfection bottle stopper do	1.00
Steel, best knife blade, Rogers' white handle, No. 18149 per dozen	5.50		Ink wells:	
Steel knife blade, white handle, Miller Bros., No. 686 per dozen	3.60		metallic, glass lined, Whitcomb's do	1.60
Ink and pencil, Faber's mammoth, per dozen	1.50		Novelty do	.99
Ink and paper cleaners, Faber's improved per dozen	.40		Dulany's do	.95
Files, Shipman's adhesive:			Ink extractors, Bloede's do	1.60
10 by 12, 250 leaves each	.60		Mucilage, best, Carter's great stickest, or equal to per quart	.50
9 by 15, 500 leaves do	.98		Mucilage founts:	
9 by 13, 250 leaves do	.59		Morgan's, No. 2 per dozen	2.50
File-holders, Woodruff's:			Morgan's, No. 6 do	2.85
Poplar, 9 by 9½ inches per dozen	4.50		Wolf's nickel-plated do	9.00
Black walnut front, 9 by 9½ inches, per dozen	5.80		Mucilage stands:	
Hones, office, Scotch, 5-inch, in boxwood cases, genuine per dozen	6.50		Carter's, 5 ounce do	1.80
			Carter's, 10 ounce do	3.72
			McGill's fasteners:	
			¼-inch (100 in box), flat head, No. 1, per box	.18
			½-inch (100 in box), flat head, No. 2, per box	.18
			¾-inch (100 in box), flat head, No. 3, per box	.20
			1-inch (100 in box), flat head, No. 4, per box	.22
			Single staple (250 in box) per box	.20



## CLASS I.—Stationery—Continued.

## Paper:

Legal cap, 14 pounds, ruled, Whiting Paper Co.'s or equal to, per ream	\$1.68
Foolscap, white, 14 pounds, plain or ruled, Whiting Paper Co.'s, or equal to, per ream	1.68

## Paper, letter:

White, 12 pounds, plain or ruled, Whiting Paper Co.'s, or equal to, per ream	1.44
White, 14 pounds, plain or ruled, Whiting Paper Co.'s, or equal to, per ream	1.68

## Paper, note:

White, 6 pounds, plain or ruled, Whiting Paper Co.'s, or equal to, per ream	.72
Packet, 7 pounds, plain or ruled, Whiting Paper Co.'s, or equal to, per ream	.84

## Paper, typewriter:

Legal size, Regent No. 4, W. S. & B., or equal to, per ream of 500 sheets	1.26
Legal size, with marginal lines, Regent No. 4, or equal to, per ream of 500 sheets	1.33
Letter size, Regent No. 4, W. S. & B., or equal to, per ream of 500 sheets	1.01
Legal size, Paragon, 1½ wove, W. S. & B., or equal to, per ream of 500 sheets	1.05
Legal size, with marginal lines, Paragon, 1½ wove, W. S. & B., or equal to, per ream of 500 sheets	1.12
Letter size, Paragon, 1½ wove, W. S. & B., or equal to, per ream of 500 sheets	.87
Legal size, Royal Paragon, W. S. & B., or equal to, per ream	2.45
Letter size, Royal Paragon, W. S. & B., or equal to, per ream	2.10
Legal size, No. 5, W. S. & B., or equal to, per ream	1.05
Letter size, No. 5, W. S. & B., or equal to, per ream	.87

## Paper:

Commercial note, Irish linen, best Marcus Ward's	per ream	2.33
Examination, 12 pounds	do	1.65
Drawing (Whatman's double elephant, 27 by 40)	per sheet	.12½
Blotting, Treasury blotter No. 100, 90 pounds to ream	per ream	11.00
Wrapping, Manila, assorted sizes, No. 1	per pound	.07
Light Manila tissue cap size, per ream		.13½
Oil, full sheet, 20 by 24, heavy board, per sheet		.06
Paper, hektograph:		
Cap, in blocks	each	.72
Letter, in blocks	do	.50
Note, in blocks	do	.26

## Pens, Spencerian:

No. 1	per gross	.70
No. 2	do	.70
No. 3	do	.70
No. 5 (school)	do	.70
No. 33 (school)	do	.70
No. 27	do	.70
No. 28	do	.70

## Pens, Gillott's:

No. 303	do	.73
No. 404	do	.40

## Pens, Dreka's engrossing, No. 3

do		.56
----	--	-----

## Pens, Esterbrook's:

No. 128 (school pen)	do	.38
No. 048, Falcon	do	.42
No. 333	do	.44
No. 444	do	.36

## Pens, Mann's Golden Falcon

do		1.20
----	--	------

## Pens, miscellaneous (all kinds not enumerated)

per gross		.60
-----------	--	-----

## Pens, Mozeltic

do		2.50
----	--	------

## Pens, Miller Bros.:

University, No. 28 (school)	do	.41
No. 4	do	.47
No. 87	do	.35
No. 444	do	.32
No. 119	do	.47
No. 99	do	.47

## Pens, King's, Nonpareil:

No. 5	per gross	\$0.78
Engrossing D	do	.78
Engrossing C	do	.77
Extra fine	do	.77
Falcon	do	.40

## Pens, ruling:

Alteneder's, any size	per dozen	15.00
Gisburne's	per set	.20

## Pens, American States Pen Co.'s:

No. 1848 Falcon	per gross	.50
No. X292X, public schools	do	.50
No. 4X4, university	do	.50

## Pens, Tadella, zinc:

No. 1	do	.78
No. 2	do	.78
No. 4	do	.78
No. 7	do	.78
No. 10	do	.78
No. 11	do	.78

## Erasers, rubber, American States Pen Co.'s,

Electric, No. 40	per dozen	.78
------------------	-----------	-----

## Penholders, wood:

No. 2240, Faber's	per gross	.68
Nos. 1537, 1538, 1539, Faber's	do	3.00

## Penholders, rubber:

No. 1, short and long	per dozen	.75
No. 2, short and long	do	.80
No. 3, short and long	do	.85
No. 4, short and long	do	.90

## Penholders, Eagle Pencil Co.:

Crown No. 1	do	.30
Crown No. 2	do	.34
Crown No. 3	do	.37
Crown No. 4	do	.40

## Penholders, Eagle, No. 1407

per gross		.63
-----------	--	-----

## Pencils, lead:

Faber's hexagon, best, Nos. 1, 2, 3, 4, 5, per gross		5.75
Faber's round, best, Nos. 1, 2, 3, 4, 5, per gross		4.15
Faber's hexagon, artists, 2 H, 3 H, 4 H, 5 H, and 6 H, Siberian	per gross	9.00

## Pencils, colored, combined carmine and blue,

extra, 9-inch	per dozen	.65
---------------	-----------	-----

## Pencils, Dixon's American graphite:

S., S. M. H., and V. H.	per gross	3.50
Rubber tip, No. 552	do	4.40

## Pencils, artists', Dixon's American graphite, assorted

per gross		5.50
-----------	--	------

## Pencils, A. S. P. Co.'s:

Monumental	do	3.60
Graham	do	3.40
Thos. Jefferson	do	3.00

## Pencils, Eagle:

Hexagon, gold, 1, 1½, 2, 2½, 3, 4, 5	do	4.05
Round, gold, 1, 1½, 2, 2½, 3, 4, 5	do	3.05
Fine arts, 6 B to 6 H	do	8.25
Colored crayons, any color	per dozen	.57

## Do

do		.62
----	--	-----

## Hexagon, office, No. 402

do		.47
----	--	-----

## Automatic, red, green, and black, and

copying ink, size A	per dozen	1.85
---------------------	-----------	------

## Pencils, carpenters':

Eagle, 435	do	.45
Eagle, 462	do	.38

## Pencil leads, for automatic pencils:

Indelible	do	.45
Colored	do	.36

## Pins, toilet, Eureka:

No. 2	per paper	.06
No. 3	do	.06
No. 4	do	.05
No. 5	do	.05

## Paper-cutters, ivory, 10-inch, Congress, per

dozen		7.00
-------	--	------

## Paste, parlor, equal to Schoville Manufacturing Co

per quart		.50
-----------	--	-----

## Pointers, blackboard, 4, 5 and 6 feet each

		.16
--	--	-----

## Rulers, boxwood, brass edge:

12-inch, Faber's, 112	per dozen	2.75
16-inch, Faber's, 112	do	3.00
18-inch, Faber's, 112	do	3.50
24-inch, Faber's, 112	do	5.60

## Rulers, gutta-peacha, flat:

12-inch	do	1.45
16-inch	do	2.00

## CLASS I.—Stationery—Continued.

Rulers, gutta-peacha, flat—Continued.		
18-inch.....	per dozen..	\$2.00
24-inch.....	do.....	3.60
Rubbers, blackboard, novelty crayon eraser.....	per dozen.....	.50
Rubbers and bevel eraser, Eagle Pencil Co., any size.....	per pound.....	.90
Shears, 10-inch, Seymour Bankers'.....	each.....	.60
Sponge for cup, best.....	per pound.....	.80
Sponge cups, Bankers', 3-inch, heavy, per dozen.....		.70
Scale, triangular, boxwood, 10ths and inches, each.....		.90
Twine:		
Linen.....	per pound.....	.45
Hemp.....	do.....	.16
Elm and flax.....	do.....	.40
Thermometers, 7-inch, japanned, tin frame, each.....		.07
Tape, red, No. 21, 72 yards to spool, per spool.....		.20

Triangles, rubber, all sizes.....	per dozen..	\$3.00
Tablets, memorandum:		
Note size.....	do.....	.50
Assorted sizes.....	do.....	.65
Tablets:		
Sand paper, 2½ by 4 inches.....	do.....	1.20
Letter size, ruled to order.....	do.....	1.35
Tacks, thumb; German silver, any size, per dozen.....		.18
Tape lines (Chesterman's best or equal to):		
100 feet, metallic.....	each.....	3.00
50 feet, metallic.....	do.....	1.85
100 feet steel.....	do.....	9.25
50 feet, steel.....	do.....	5.10
Tracing cloth (imperial or equal to):		
36-inch.....	per roll..	4.74
42-inch.....	do.....	7.30
Water colors, assorted, full cake (Windsor & Newton's).....	per cake..	.30
Wax, sealing, best quality.....	per pound..	.40

## CLASS II.—Blank forms and printing.

Forms, blank, flat letter, full sheet, ruled and printed on one or both sides:		
12-lb. paper.....	per M..	\$6.25
14-lb. paper.....	do.....	6.75
Forms, blank, flat letter, two to sheet, ruled and printed on one or both sides:		
12-lb. paper.....	per M..	8.30
14-lb. paper.....	do.....	3.30
Forms, blank, flat letter, four to the sheet, ruled and printed on one or both sides:		
12-lb. paper.....	per M..	1.50
14-lb. paper.....	do.....	1.40
Forms, blank, cap, full sheet, ruled and printed on one or both sides:		
Linen ledger, 18-lb. paper.....	per M..	11.25
16-lb. paper.....	do.....	9.50
Forms, blank, cap, two to the sheet, ruled and printed on one or both sides:		
16-lb. paper.....	per M..	4.95
Linen ledger, 18-lb. paper.....	do.....	6.30
Forms, blank:		
Cap, four to the sheet, ruled and printed on one or both sides, 16-lb. paper, per M.....		3.00
Demy, full sheet, ruled and printed on one or both sides, 28-lb. paper, per M.....		14.00
Demy, two to the sheet, ruled and printed on one or both sides, 28-lb. paper, per M.....		7.96
Forms, blank, demy, four to the sheet, ruled and printed on one or both sides:		
Linen ledger, 28-lb. paper.....	per M..	6.50
28-lb. paper.....	do.....	4.00

Forms, blank, folio post:		
Full sheet, ruled and printed on one or both sides, 28-lb. paper.....	per M..	\$14.00
Two to sheet, ruled and printed on one or both sides, 28-lb. paper.....	per M..	8.00
Four to the sheet, ruled and printed on one or both sides, 28-lb. paper, per M.....		3.00
Forms, blank, medium:		
Full sheet, ruled and printed on one or both sides, 36-lb. paper.....	per 100..	1.85
Two to the sheet, ruled and printed on one or both sides, 36-lb. paper, per 100.....		1.17½
Four to the sheet, ruled and printed on one or both sides, 36-lb. paper, per 100.....		77½
Forms, blank, royal:		
Full sheet, ruled and printed on one or both sides, 45-lb. paper.....	per 100..	2.35
Half sheet, ruled and printed on one or both sides, 45-lb. paper.....	per M..	1.40
Printing:		
Official letter-heads, half sheet, per ream.....		45
Official envelopes.....	per M..	44
Miscellaneous (pica).....	per M ems..	60
Miscellaneous (small pica).....	do.....	50
Miscellaneous (long primer).....	do.....	45
Miscellaneous (brevier).....	do.....	42
Miscellaneous (nonpareil).....	do.....	29

## CLASS III.—School books.

Algebra, Wentworth's School.....	per dozen..	\$10.98
Analysis, Word:		
Swinton's (old edition).....	do.....	2.75
Swinton's (new edition).....	do.....	3.32
Arithmetic:		
Ficklin's Elementary.....	do.....	3.80
Ficklin's National.....	do.....	6.69
Sadler's Inductive, Part 2.....	do.....	8.90
Davies' Intellectual.....	do.....	2.37
Bernhardt's Sprachbuch.....	do.....	9.60
Bible, 12mo, roan (brevier).....	do.....	6.00
Books:		
Spencer's Copy and Practice Paper Combination, Nos. 2, 3, 4, 5, 6, 8, and 10, per dozen.....		1.17
Drawing, Prang's (Clarke edition No. 6).....	per dozen..	.80
Drawing, Prang's (Clarke edition) Nos. 7, 8, and 9.....	per dozen..	1.60
Prang's Shorter Course in Form Study and Drawing, Nos. 2 and 3, per dozen.....		1.36
Bookkeeping, Bryant & Stratton, High School.....	per dozen..	14.35

Child's Health Primer, A. S. Barnes & Co., per dozen.....		\$2.85
Chittenden's Elements of Composition, per dozen.....		4.48
Dictionary:		
Academic, Worcester's.....	per dozen..	14.29
Webster's International, Unabridged (latest edition), indexed, sheep, each.....		8.10
Worcester's Unabridged (latest edition), indexed, sheep.....	each.....	7.00
Geometry, Wentworth's, new, Plain and Solid.....	per dozen..	12.25
Geography:		
Swinton's Introductory.....	do.....	5.25
Swinton's Grammar School.....	do.....	11.95
Grammar:		
Kerl's Common School.....	do.....	6.87
Latin, Allen and Greenough's revised, per dozen.....		11.74
History:		
Egleston's United States.....	per dozen..	10.05
Myer's Eastern Nations and Greece.....	per dozen..	9.98



## CLASS III.—School books—Continued.

## History—Continued.

of the United States (Scudder), per dozen	\$9.60
Barnes' Brief United States, per dozen	9.56
of the United States (Johnson) do	10.39
Thompson's England do	9.08
Allen's, of the Roman People do	10.00
Hygiene for Young People, A. S. Barnes & Co. per dozen	4.25
Lessons, Language, Kerl's do	3.18
Latin Book, the Beginners, Collar & Daniel per dozen	10.00
Principles of Rhetoric, A. S. Hill do	7.49
Physiology, Steel's Hygienic do	9.57
Physics, Gage's Elements of each	.91
Readers:	
First and Primer, Franklin (new), per dozen	2.29
Second, Franklin (new) do	3.45

## Readers—Continued.

Third, Franklin (new) per dozen	\$4.79
Fourth, Franklin (new) do	5.75
Intermediate, Franklin do	5.18
Fifth, Franklin (new) do	8.06
Readers, Mason's Music:	
First (new) do	2.45
Second (new) do	3.98
Third (new) do	3.98
Abridged Independent (revised edition) per dozen	5.89
Readers:	
Music, the Enterpean do	12.75
Geographical, Scribner's do	5.72
Record, Tracey's School do	5.25
Spellers, Pronouncing, Worcester's New per dozen	2.20
Pronouncing Gazetteer, Lippincott's each	7.29

## CLASS IV.—Furniture.

## Bookcase, Danner's revolving:

No. 2, standard, 40 inches high each	\$11.70
No. 3, standard do	13.10
No. 4, standard do	14.85
Carpets, body Brussels, American, five frame, as per sample submitted, per yard	1.05
Carpet-lining paper, best quality, 5 rows stitched per yard	.05
Chair bottoms, all sizes, perforated, per dozen	1.50
Chairs, common, wood, bent tops, per dozen	4.00
Chairs, oak:	
Perforated seat, bent top, 486, P. Heywood, Bros. & Co. per dozen	6.31
Arm, cane-seated, (rodded) Douglass, per dozen	15.85
Arm, wood seat (rodded) Douglass, per dozen	14.85
Chairs, black walnut:	
Arm, cane-seated office (rodded) Douglass per dozen	21.90
Arm, cane-seated, S. & S. Office (rodded) Continental per dozen	54.25
Cane-seated, high back, arm, revolving, tipping, Harmony per dozen	122.00
Senate, S. & S do	147.00
Chairs, American bent, No. 453, Haywood Bros. & Co. per dozen	18.50
Dusters, ostrich feather:	
Full center, No. 7 do	2.25
18-inch, full center, parlor duster, per sample per dozen	16.25
Holland:	
Best American, for window-shades, per square yard	.16

## Holland—Continued.

Best Scotch per square yard	\$0.20
Linoleum (best quality) do	.60
Mattresses, hair, made up, best quality, per pound	.37
Matting:	
Cocoa, best quality, white, per square yard	.50
Napier, best quality per square yard	.32
Straw, best quality, white, as per sample submitted per square yard	.30
Straw, fancy, as per sample submitted, per square yard	
Mats, cocoa, office, plain, best quality, per square foot	.27
Oil-cloth, best quality per square yard	.38
Opaque, best quality, for window shades per square yard	.16
Pillows, feather, made up per pound	.45
Water coolers, Hall's or equal to:	
3 gallons, walnut each	3.80
4 gallons, walnut do	4.85
6 gallons, walnut do	6.45
8 gallons, walnut do	7.25
Water-cooler stands, with dip pan and 4-inch post each	1.65
Window shades, making and hanging only, per shade	.16
Window rollers, 1 and 1½ inch, Hartshorn (all lengths):	
Tin barrel per dozen	5.14
Wood barrel do	2.21

## CLASS V.—Hardware.

## Awls:

Pegging, assorted per dozen	\$0.02½
Sewing, assorted do	.03
Awl-handles, peg, brad, sewing, assorted per dozen	.15
Axe, wood, all sizes, equal to Mann's, each	.49
Axle grease:	
Diamond X per dozen	.50
Boxes Moss per pound	.06
Bits, auger, assorted sizes, ¼ to 1½ inch, Russell Jennings's each	.14
Blacking, shoe:	
Army and Navy, No. 4 per dozen	.39
Mason's, No. 4 do	.39
Blacking dips, Royal dauber do	1.54
Buckets:	
Oak, 3-hoop, iron bail do	4.08
Indurated, fiber, Star pail do	3.85
Water, cedar, 3 galvanized hoops, per dozen	2.99

## Brooms:

Corn, heavy, 5-string, as per sample per dozen	\$2.40
Whisk, per sample do	1.34
Rattan, 14-inch, heavy, per sample, per dozen	3.20
Rattan, 16-inch, heavy, 6-row, per sample per dozen	4.08
Bass, 16-inch, heavy, per sample, per dozen	4.90
Brushes whitewash:	
12 knots, 00000, extra extra, per sample per dozen	15.97
per sample, No. 5, Crescent, extra per dozen	17.87
Brushes, shoe, polishing, per sample, per dozen:	
Dusting, per sample, No. 5, extra, all white per dozen	4.48
Sweeping, 14-inch, per sample do	14.63
Sweeping, 18-inch, per sample do	17.88
Scrub, all bristle, No. 52, do	2.10



## CLASS V.—Hardware—Continued.

Bolts, stove, 2-inch and under, all kinds, per 100.....	\$0.30	Hooks and eyes, brass, 5-inch and under, per dozen.....	\$0.40
Bolts, door, wrought iron, square or round:		Horseshoe rasps, 14 to 16 inch. Heller's or equal to..... per dozen.....	5.12
5-inch and under..... per dozen.....	.60	Hooks and staples, wrought iron, 8-inch and under..... per dozen.....	.20
6 and 8 inch..... do.....	1.24	Hooks and hinges, screw and drive, assorted sizes..... per pound.....	.02 <sup>2</sup> / <sub>10</sub>
10 and 12 inch..... do.....	1.35	Hammers:	
Bolts, carriage, 5 inch and under, per 100.....	.69	Claw, adze eye, all steel, Plumb's or equal to..... each.....	.29
Brads 1 to 3 inch, wire..... per pound.....	.05	Stone, all steel, napping, per pound.....	.09 <sup>1</sup> / <sub>2</sub>
$\frac{1}{2}$ -inch and under, wire.....	.06 <sup>1</sup> / <sub>10</sub>	Sledge, all steel, blacksmith's, do.....	.08
Babbitt metal, No 2..... per pound.....	.07 <sup>1</sup> / <sub>2</sub>	Hoes, steel, best:	
Cloth, crocus..... per sheet.....	.02	Solid socket, garden..... each.....	.19
Cord, sash:		Solid socket, for street use, 10-inch blade, Harper's or equal to..... each.....	.35
Hemp, Russia..... per pound.....	.14 <sup>1</sup> / <sub>2</sub>	Mortar, No. 3, Harper's or equal to, each.....	.50
Braided, Silver Lake, all sizes, do.....	.27	Iron:	
Emery cloth, all numbers..... per quire.....	.44	Bar, American, all sizes, refined, flat, or square..... per pound.....	.02 <sup>2</sup> / <sub>10</sub>
Eagle Tripoli..... per dozen papers.....	.50	Round, American, $1\frac{1}{2}$ -inch and under, refined..... per pound.....	.02 <sup>2</sup> / <sub>10</sub>
Files, flat, 4, 6, 8, 10, 12, 14, and 16 inch:		Norway, round, flat, or square, do.....	.04 <sup>1</sup> / <sub>2</sub>
Bastard..... per dozen.....	1.93	Knobs, door, bronzed iron, No. 2025, M. W. & Co.'s..... per pair.....	.22
Smooth..... do.....	2.38	Keys, blank, brass..... per dozen.....	.46
Files:		Locks, pads, No. 20, M. W. & Co.'s per dozen.....	3.39
Saw, all sizes, 3-cornered..... do.....	.44	Locks, jail, latest improved Scandinavian, Star..... per dozen.....	2.37
Round, 5, 6, 8, 10, and 12 inch, bastard and smooth..... per dozen.....	.98	Lock, M. W. & Co.'s:	
Square, 5, 6, 8, 10, and 12 inch, bastard and smooth..... per dozen.....	1.23	Pad, No. 1033..... per dozen.....	1.84
Half round, 4, 6, 8, 10, 12, 14, and 16 inch, bastard and smooth, per dozen.....	2.38	Rim, 4-inch, No. 2202..... do.....	2.48
Forks, hay:		Rim, 5-inch, No. 927..... do.....	3.52
Strapped, with long handle, Fairmount or equal to best 3-prong, per dozen.....	2.88	Mortice, 5-inch, No. 1022..... do.....	4.74
Best 4-prong..... per dozen.....	3.38	Cottage rim, 5-inch, No. 178 $\frac{1}{2}$ ..... do.....	4.28
Forks, manure, 4-prong, strapped:		Latches:	
Fairmount or equal to long handle, per dozen.....	3.15	Store door, No. 3, Reading Hardware Co.'s..... per dozen.....	.98
D handle..... do.....	3.24	Night, Yale, No. 42..... do.....	14.40
Fuse, powder:		Ladders, step, Adams' or equal to, per foot.....	.10
Double water-proof..... per foot.....	.00 <sup>5</sup> / <sub>10</sub>	Mattocks, adze-eye, 6 pounds, long cutter, Iron City or equal to..... per dozen.....	5.19
Cotton..... do.....	.00 <sup>10</sup> / <sub>10</sub>	Mops, floor, cotton, 15 pounds..... do.....	1.77
Felt, roofing, tarred..... per pound.....	.02	Nails:	
Handles:		Horseshoe, best, Putnam, per pound.....	.15
Sledge, XX..... per dozen.....	.89	Hinge, wrought, pump..... do.....	.10
For sweeping brushes, 6 feet, per sample..... per dozen.....	.59	Slatting, all sizes..... do.....	.03 <sup>10</sup> / <sub>100</sub>
For rattan brooms, 6 feet, per sample, per dozen.....	.38	Clout, in 1-pound papers, $\frac{1}{4}$ -inch to 2-inch..... per paper.....	.04
Mop and brush, Hart's, or equal to..... per dozen.....	.89	Nails cut:	
Mop..... do.....	.85	Finishing, 6 to 10 penny..... per pound.....	.02 <sup>70</sup> / <sub>100</sub>
Axe, XX..... do.....	.84	Lathing, 3-penny, fine..... do.....	.03 <sup>1</sup> / <sub>2</sub>
Pick, XX..... do.....	.89	3-penny..... do.....	.02 <sup>70</sup> / <sub>100</sub>
Hasps and staples, 10-inch and under per dozen.....	.24	4 and 5 penny..... do.....	.02 <sup>30</sup> / <sub>100</sub>
Hasps, hinged, 10-inch and under per dozen.....	.39	6 and 7 penny..... do.....	.02 <sup>10</sup> / <sub>100</sub>
Hatchets:		8 and 9 penny..... do.....	.02 <sup>4</sup> / <sub>100</sub>
Nos. 2 and 3, Peck's, or equal to, shingling..... per dozen.....	3.34	10-penny..... do.....	.01 <sup>90</sup> / <sub>100</sub>
Half..... do.....	4.20	12, 16 and 20 penny..... do.....	.01 <sup>84</sup> / <sub>100</sub>
Hinges, strap:		30-penny..... do.....	.01 <sup>80</sup> / <sub>100</sub>
6-inch and under, light..... per pair.....	.03	40-penny..... do.....	.01 <sup>84</sup> / <sub>100</sub>
8 to 12 inch, inclusive, light..... do.....	.06	50 and 60 penny..... do.....	.01 <sup>70</sup> / <sub>100</sub>
6 to 10 inch, inclusive, heavy..... do.....	.11	Nails wrought, all sizes..... do.....	.03
12 to 16 inch, inclusive, heavy..... do.....	.20	Nails, steel wire:	
Hinges:		3-penny..... do.....	.03 <sup>80</sup> / <sub>100</sub>
Blind, No. 0 to 3-inch, heavy, Lull & Porter..... per pair.....	.06	4 and 5 penny..... do.....	.03 <sup>20</sup> / <sub>100</sub>
Inside shutter, back flaps, all sizes, per pair.....	.01 <sup>1</sup> / <sub>2</sub>	6 and 7 penny..... do.....	.03
Hinges, butt:		8 and 9 penny..... do.....	.02 <sup>80</sup> / <sub>100</sub>
Fast and loose, 2 by 2 to 3 $\frac{1}{2}$ by 3 $\frac{1}{2}$ per pair.....	.04 <sup>1</sup> / <sub>2</sub>	10-penny..... do.....	.02 <sup>3</sup> / <sub>100</sub>
Fast and loose, 4 by 4 to 5 by 5, per pair.....	.10	12, 16, and 20 penny..... do.....	.02 <sup>60</sup> / <sub>100</sub>
Inside blind, any size..... per pair.....	.01 <sup>1</sup> / <sub>2</sub>	Paper, sand, Baeder, Adamson & Co.'s, per quire.....	.12
Hinges, T:		Pegs, shoe..... per quart.....	.03 <sup>1</sup> / <sub>2</sub>
6-inch and under, light..... do.....	.03	Picks, adze-eye, 6 to 9 pounds, Iron City Tool Works, Pittsburg, Pa., per doz.....	4.56
6 to 12 inch, inclusive, extra heavy, per pair.....	.12	Powder, blasting..... per pound.....	.08 <sup>1</sup> / <sub>2</sub>
8 to 12 inch, inclusive, light, per pair.....	.05	Pruners, tree, Waters' improved, 4 to 12 feet..... each.....	.85
14 and 16 inch, extra heavy..... do.....	.21	Pruning blades, Waters'..... do.....	.10
Hinges, brass, butt, 3 by 2 inch and under, fast..... per pair.....	.06	Rope:	
		All sizes, pure manila..... per pound.....	.13
		Cotton, all sizes, "A" quality..... do.....	.16

## CLASS V.—Hardware—Continued.

Rakes:					
Steel, 14 teeth	per dozen	\$3.24	Shoes, horse, Perkins' or equal to,	per pound	\$0.03 <sup>55</sup> / <sub>100</sub>
Malleable iron, 14 teeth	do.	1.62	Screw-drivers, 12-inch and under, round blade, black handle	each	.17
Stone, round teeth, No. 30, Fairmount or equal to	per dozen	2.64	Screws:		
Wrought iron, concrete rake, long shank	per dozen	11.70	1-inch, No. 12 and under	per gross	.17
Rivets and burrs, copper, all sizes per pound		.21	1 $\frac{1}{2}$ -inch, No. 12 and under	do.	.24
Rules, full brass bound, carpenters', 2-foot	each	.19	1 $\frac{1}{2}$ -inch, No. 14 and under	do.	.28
Scoops, coal, cast steel, all sizes, Remington or equal to	per dozen	9.98	2-inch, No. 14 and under	do.	.36
Spikes, 4 to 7 inch, cut	per pound	.02 <sup>16</sup> / <sub>100</sub>	Twine, Mason's	per pound	.28
Scythes:			Tacks:		
American, Wadsworth's Clipper, or equal to	each	.38	6, 8, and 10 ounce papers, full weight, per paper		.03
English, Waldron's	do.	1.04	12, 14, 16, and 18-ounce papers, full weight	per paper	.05
Scythe stones, round, English	do.	.06 $\frac{1}{2}$	Turnbuckles, cast iron, japanned:		
Shovels, best, D handle:			For wood	per dozen	.19
Ames'	per dozen	8.17	For brick	do.	.17
Hussey, Binns & Co.'s, Pittsburg, Pa.	per dozen	7.58	Washboards, double, zinc	do.	1.85
Shovels, long-handled, best, round or square points:			Wheelbarrows, dirt, steel:		
Ames'	per dozen	8.17	Jackson, No. 4	each	6.74
Hussey Binns, & Co.'s, Pittsburg,	per dozen	7.58	No. 4, Kilbourne & Jacobs Manufacturing Co.'s	each	5.50
Spades, Ames', long or short handle, per dozen		8.64	Wheelbarrows, wood, Kilbourne & Jacobs Manufacturing Co.'s:		
Saws:			With sides, garden, Nos. 2 to 4	each	2.89
Hand, Diston's cross-cut or rip,	each	1.17	Sand	do.	1.63
Buck, Diston's	do.	.23	Wrench, monkey:		
Compass, Diston's	do.	.21	6-inch and under, Coe's knife-handle	each	.24
Slating:			8-inch, Coe's knife-handle	do.	.33
Silicate, black diamond	per gallon	3.24	10-inch, Coe's knife-handle	do.	.42
Blackboard, Mound City	do.	2.60	12-inch, Coe's knife-handle	do.	.51
			14-inch, Coe's knife-handle	do.	.84
			18-inch, Coe's knife-handle	do.	1.10
			Wire, copper, all sizes	per pound	.24

## CLASS VI.—Tinware.

Brick, fire:			Elbows, American iron, all sizes	each	\$0.20
For stoves	per hundred	\$2.50	Fire-clay, Nos. 1 and 2	per barrel	5.00
Square, Mount Savage	do.	4.00	Lanterns, tubular:		
Buckets:			No. 0, Dietz	each	.50
Tin, green, 20-quart, with lip covered, per dozen		6.00	No. 0, Dietz, red globes	do.	1.00
Tin, slop jar, painted	do.	4.00	Lanterns, railroad:		
Galvanized iron, 10-quart	do.	2.75	For coal-oil	do.	.70
Basins, wash, 12-inch, stamped tin, retinned, 035, with foot	per dozen	1.00	Red globes, for coal-oil	do.	1.10
Cups:			Plates, tin, pie, 9-inch	per dozen	.25
Stamped tin, retinned, 010, 4 $\frac{1}{2}$ -inch, per dozen		.40	Pipe, stove, American iron, all sizes, per pound		.15
Stamped iron, quarts, retinned, No. 100	per dozen	2.40	Pans, dust, corrugated, painted, steel edge	per dozen	2.50
Tin, for cells, per sample	do.	1.50	Polish, stove:		
Coal-hods, galvanized iron, 18-inch:			Sticks, Dixon's square	do.	.50
Open	each	.30	Dixon's	per pound	.10
Half-covered	do.	.45	Pokers, 20 and 24 inch	per dozen	.75
Cans, sprinkling, tin:			Shovels, stove:		
4-gallon, Green	do.	.80	Short-handled	do.	.75
3-gallon, Green	do.	.50	Long-handled	do.	1.00
2-gallon, Green	do.	.40	Tin:		
Dippers, retinned, quarts, stamped, per dozen		.50	Roofing, I. C., 14 by 20	per box	7.50
			I. C., Bright, 14 by 20	do.	8.50
			Wire, stove	per pound	.10
			Zinc, sheet	do.	.07

## CLASS VII.—Plumbers' material.

Gum, sheet, $\frac{3}{4}$ -inch and under:			Packing:		
Pure gum	per pound	\$0.50	Selden's	per pound	\$0.43
Cloth inserted	do.	.15	Jute	do.	.05 <sup>25</sup> / <sub>100</sub>
Hose, gum, $\frac{3}{4}$ -inch, 3-ply, Goodyear's A No. 1, superior or equal to	per foot	.07 $\frac{1}{2}$	Thimbles, brass, male or female, soldering nipples:		
Hydrant valves	each	.95	$\frac{1}{4}$ -inch	each	.05
Hydrant-handle sockets	do.	.14	$\frac{1}{2}$ -inch	do.	.06
Hydrant-handle guides	do.	.14	1-inch	do.	.11
Hydrant tops	do.	.20	1 $\frac{1}{2}$ -inch	do.	.15
Hydrant handles	do.	.20	1 $\frac{3}{4}$ -inch	do.	.21
Hydrant journals, cast-iron	do.	.10	2-inch	do.	.29
Lead, pig, Omaha and Grant, or equal to, per 100 pounds		4.95	2 $\frac{1}{2}$ -inch	do.	.32

CLASS VII.—*Plumbers' material*—Continued.

Unions, galvanized iron, $\frac{3}{4}$ -inch, Keystone or equal to.....	each	\$0.20
Nipples, galvanized iron, $\frac{3}{4}$ -inch.....	do	.03
Elbows:		
$\frac{1}{4}$ -inch.....	do	.01
$\frac{1}{2}$ -inch.....	do	.01 $\frac{1}{2}$
$\frac{3}{4}$ -inch.....	do	.01 $\frac{3}{4}$
1-inch.....	do	.02 $\frac{1}{2}$
1 $\frac{1}{4}$ -inch.....	do	.03 $\frac{1}{2}$
1 $\frac{1}{2}$ -inch.....	do	.05
1 $\frac{3}{4}$ -inch.....	do	.06 $\frac{1}{2}$
2-inch.....	do	.10
Elbows, reducing:		
$\frac{1}{4}$ -inch.....	do	.01 $\frac{1}{2}$
$\frac{1}{2}$ -inch.....	do	.01 $\frac{3}{4}$
$\frac{3}{4}$ -inch.....	do	.01 $\frac{3}{4}$
1-inch.....	do	.03
1 $\frac{1}{4}$ -inch.....	do	.04
1 $\frac{1}{2}$ -inch.....	do	.06
1 $\frac{3}{4}$ -inch.....	do	.07
2-inch.....	do	.12
Tees:		
$\frac{1}{4}$ -inch.....	do	.01 $\frac{1}{2}$
$\frac{1}{2}$ -inch.....	do	.02
$\frac{3}{4}$ -inch.....	do	.02 $\frac{1}{2}$
1-inch.....	do	.03 $\frac{1}{2}$
1 $\frac{1}{4}$ -inch.....	do	.05
1 $\frac{1}{2}$ -inch.....	do	.07 $\frac{1}{2}$
1 $\frac{3}{4}$ -inch.....	do	.09 $\frac{1}{2}$
2-inch.....	do	.15
Tees, reducing:		
$\frac{3}{4}$ -inch.....	do	.02
1-inch.....	do	.03
1 $\frac{1}{4}$ -inch.....	do	.04
1 $\frac{1}{2}$ -inch.....	do	.06
1 $\frac{3}{4}$ -inch.....	do	.09
2-inch.....	do	.11
Bushings:		
$\frac{3}{4}$ -inch.....	do	.01
1-inch.....	do	.01
1 $\frac{1}{4}$ -inch.....	do	.01
1 $\frac{1}{2}$ -inch.....	do	.01
1 $\frac{3}{4}$ -inch.....	do	.02
2-inch.....	do	.03
Plugs:		
$\frac{1}{4}$ -inch.....	do	.04 $\frac{3}{4}$
$\frac{1}{2}$ -inch.....	do	.00 $\frac{3}{4}$
$\frac{3}{4}$ -inch.....	do	.00 $\frac{3}{4}$
1-inch.....	do	.01
1 $\frac{1}{4}$ -inch.....	do	.01 $\frac{1}{2}$
1 $\frac{1}{2}$ -inch.....	do	.02
1 $\frac{3}{4}$ -inch.....	do	.02 $\frac{3}{4}$
2-inch.....	do	.04
Nipples, close or shoulder:		
$\frac{1}{4}$ -inch plain.....	do	.01
Nipples, close:		
$\frac{1}{4}$ -inch.....	do	.01
$\frac{1}{2}$ -inch.....	do	.01
$\frac{3}{4}$ -inch.....	do	.02
1-inch.....	do	.02
1 $\frac{1}{4}$ -inch.....	do	.03
1 $\frac{1}{2}$ -inch.....	do	.04
2-inch.....	do	.05
Nipples, long:		
$\frac{1}{4}$ -inch.....	do	.01
$\frac{1}{2}$ -inch.....	do	.01 $\frac{1}{2}$
$\frac{3}{4}$ -inch.....	do	.02
1-inch.....	do	.02 $\frac{1}{2}$
1 $\frac{1}{4}$ -inch.....	do	.03
1 $\frac{1}{2}$ -inch.....	do	.04
2-inch.....	do	.05
Return bends:		
$\frac{1}{4}$ -inch.....	do	.04
1-inch.....	do	.05
1 $\frac{1}{2}$ -inch.....	do	.08
1 $\frac{3}{4}$ -inch.....	do	.12
2-inch.....	do	.18
Malleable-iron fittings:		
galvanized.....	per pound	.12
black.....	do	.08
Long screws, black:		
$\frac{1}{4}$ -inch.....	each	.11
$\frac{3}{4}$ -inch.....	do	.15
Long screws, black—Continued.		
1-inch.....	each	\$0.20
1 $\frac{1}{4}$ -inch.....	do	.27
1 $\frac{1}{2}$ -inch.....	do	.35
2-inch.....	do	.46
Long screws, galvanized:		
$\frac{1}{4}$ -inch.....	do	.13
$\frac{1}{2}$ -inch.....	do	.18
1-inch.....	do	.24
1 $\frac{1}{4}$ -inch.....	do	.32
1 $\frac{1}{2}$ -inch.....	do	.42
2-inch.....	do	.55
Packing:		
Tuck, all sizes.....	per pound	.37
Asbestos, wick.....	do	.40
Asbestos, sheet.....	do	.15
Pipe, galvanized iron:		
Diameter $\frac{3}{4}$ -inch.....	per foot	.02 $\frac{1}{2}$
Diameter $\frac{1}{2}$ -inch.....	do	.03 $\frac{1}{2}$
Diameter $\frac{3}{4}$ -inch.....	do	.04 $\frac{1}{2}$
Diameter 1-inch.....	do	.06 $\frac{1}{2}$
Diameter 1 $\frac{1}{4}$ -inch.....	do	.09 $\frac{1}{2}$
Diameter 1 $\frac{1}{2}$ -inch.....	do	.11 $\frac{7}{10}$
Diameter 2-inch.....	do	.15 $\frac{3}{10}$
Pipe, wrought iron:		
Diameter $\frac{1}{2}$ -inch, black.....	do	.01 $\frac{8}{10}$
Diameter $\frac{3}{4}$ -inch, black.....	do	.01 $\frac{7}{10}$
Diameter 1-inch, black.....	do	.02 $\frac{1}{10}$
Diameter $\frac{1}{2}$ -inch, black.....	do	.02 $\frac{1}{2}$
Diameter $\frac{3}{4}$ -inch, black.....	do	.03 $\frac{1}{2}$
Diameter 1-inch, black.....	do	.04 $\frac{1}{2}$
Diameter 1 $\frac{1}{4}$ -inch, black.....	do	.06 $\frac{3}{10}$
Diameter 1 $\frac{1}{2}$ -inch, black.....	do	.08 $\frac{7}{10}$
Diameter 2-inch, black.....	do	.10 $\frac{1}{2}$
Diameter 2 $\frac{1}{2}$ -inch, black.....	do	.16 $\frac{1}{2}$
Pipe, lead, best A A.....	per pound	.05 $\frac{1}{2}$
Stopcock, brass:		
$\frac{3}{4}$ -inch, T handles.....	each	.40
1-inch, T handles.....	do	.70
1 $\frac{1}{2}$ -inch, T handles.....	do	1.15
Cocks, corporation:		
$\frac{3}{4}$ -inch.....	do	.87 $\frac{1}{2}$
$\frac{1}{2}$ -inch.....	do	.66 $\frac{1}{2}$
$\frac{3}{4}$ -inch.....	do	.99
1-inch.....	do	1.48
Pumps, "Common Sense".....	do	16.33
Extra parts of "Common Sense" pumps:		
Middle sections.....	each	3.50
Top working parts.....	do	6.00
Handles.....	do	.30
Air vessels.....	do	2.00
Lower boxes.....	do	1.25
Spearhead irons.....	do	.20
Male and female spearhead coupling irons.....	each	.40
Wood pump rods.....	do	.40
Wood chamber plugs.....	do	.50
Solder, wiping, extra.....	per pound	.12 $\frac{1}{2}$
Tongs, extension, Brown's:		
No. 1 $\frac{1}{2}$ .....	per pair	.50
No. 3.....	do	.90
No. 5.....	do	3.30
Valves, brass, globe or angle:		
$\frac{1}{4}$ -inch.....	each	.15
$\frac{1}{2}$ -inch.....	do	.19
$\frac{3}{4}$ -inch.....	do	.25
1-inch.....	do	.34
1 $\frac{1}{4}$ -inch.....	do	.45
1 $\frac{1}{2}$ -inch.....	do	.70
2-inch.....	do	.98
2 $\frac{1}{2}$ -inch.....	do	1.48
Valves, brass, Chapman's:		
$\frac{1}{4}$ -inch.....	do	.48
$\frac{1}{2}$ -inch.....	do	.48
$\frac{3}{4}$ -inch.....	do	.48
1-inch.....	do	.70
1 $\frac{1}{4}$ -inch.....	do	1.00
1 $\frac{1}{2}$ -inch.....	do	2.00
2-inch.....	do	3.00
2 $\frac{1}{2}$ -inch.....	do	6.00
Valves, brass, check:		
$\frac{1}{4}$ -inch.....	do	.12
$\frac{1}{2}$ -inch.....	do	.15
$\frac{3}{4}$ -inch.....	do	.21
1-inch.....	do	.29



## CLASS VII.—Plumbers' material—Continued.

## Valves, brass, check—Continued.

1-inch.....each..	\$0.34
1½-inch.....do.....	.81
2-inch.....do.....	1.30
2½-inch.....do.....	2.50
Valves, globe, Jenkins's:	
1-inch.....do.....	.80
1½-inch.....do.....	1.12
1¾-inch.....do.....	1.57
2-inch.....do.....	2.28
2½-inch.....do.....	4.49
3-inch.....do.....	6.27
Valves, check, Jenkins's:	
1-inch.....do.....	.78
1½-inch.....do.....	1.08
1¾-inch.....do.....	1.50

## Valves, check, Jenkins's—Continued.

2-inch.....each..	2.25
2½-inch.....do.....	4.05
3-inch.....do.....	6.15
Valves, gate, Rensselaer's or equal to:	
3-inch bell flange.....each..	6.00
4-inch bell flange.....do.....	7.00
3-inch screw ends.....do.....	5.40
4-inch screw ends.....do.....	7.20
Valves, gate, 2-inch, Ludlow or equal to:	
With screw ends.....each..	3.00
Soldering nipples for lead pipes.....do.....	3.52
Waste, white cotton, per sample, best,	
per pound.....	.08 <sup>7</sup> / <sub>10</sub>
Buffalo extension water-service boxes, 92	
D, length from 2' 2" to 3' 6".....each..	.98

## CLASS VIII.—Groceries.

Apples, evaporated, choice, in 50-pound	
boxes, new.....per pound..	\$0.13 <sup>1</sup> / <sub>4</sub>
Baking powder, Royal, 1-pound cans	.45
.....per pound.....	
Bacon, Western shoulders, smoked.....do.....	.07 <sup>1</sup> / <sub>2</sub>
Brandy, per sample.....per gallon..	2.25
Butter, New York State choice cream-	
ery.....per pound.....	.23
Beans, prime, per sample, New York hand-	
picked.....per bushel.....	2.40
Beef, dried, choice.....per pound.....	.18
Beans, Lima, canned, 2-pound cans stand-	
ard.....per dozen.....	1.08
Codfish, salt, Georges Bank.....per pound..	.05
Coffee:	
Rio, green, choice, per sample.....do.....	21
Maracaibo, green, choice, per sample,	
per pound.....	.23
Java, roasted, best, choice.....per pound..	.32
Cheese, prime, New York State cream.....do..	.11
Crackers, soda, best.....do.....	.07
Candles, adamantine.....do.....	.10
Currants, dried, best quality.....do.....	.08
Cornstarch, best, in packages.....do.....	.09
Corn, canned, 2-pound cans, Snowflake,	
per dozen.....	1.49
Chocolate, best, Baker's.....per pound.....	.38
Cocoa, best, Baker's.....do.....	.45
Eggs, fresh.....per dozen.....	.23
Essence of lemon, best, 2-ounce bottles,	
Joseph Burnett & Co.....per dozen.....	2.75
Essence of vanilla, best, 2-ounce bottles,	
Joseph Burnett & Co.....per dozen.....	3.00
Flour:	
Patent process, Ceres or equal to,	
per barrel.....	5.48
Family, best, Cook's choice or equal to,	
per barrel.....	4.80
Buckwheat, choice.....per pound.....	.03 <sup>1</sup> / <sub>2</sub>
Graham.....do.....	.04
Ginger, ground, Jamaica, Colburn's	
choicest.....per pound.....	.22
Hams, smoked.....do.....	.11
Herring, large prime split.....per barrel..	4.98
Hops, loose.....per pound.....	.40
Hominy.....do.....	.02 <sup>1</sup> / <sub>2</sub>
Lard, refined, best, Cassard's.....per pound..	.07 <sup>1</sup> / <sub>2</sub>
Lye, concentrated, 1-pound cans, per sam-	
ple, Red Seal.....per can.....	.10
Molasses, per sample, prime Porto Rico,	
per gallon.....	.29
Matches:	
Swift & Courtney, full 200 to the box,	
Blue Hen.....per gross.....	1.75
Best blue heads.....do.....	.74
Macaroni.....per pound.....	.10
Mustard, pure, per sample, Colburn's	
choicest.....per pound.....	.23
Meal, corn, white, family.....per bushel..	.64
Malt.....do.....	1.50
Meal, oat, Muscatine.....per pound.....	.04 <sup>1</sup> / <sub>2</sub>

Mackerel, No. 1.....per pound.....	\$0.09
Oats, white, rolled.....do.....	.03 <sup>1</sup> / <sub>2</sub>
Oil:	
Astral, Pratt's, with cans, or equal to,	
per gallon.....	.10
Illuminating, 150 test, prime water,	
white.....per gallon.....	.14 <sup>1</sup> / <sub>2</sub>
Onions, prime.....per bushel.....	1.45
Potatoes, sweet, best.....per barrel.....	3.25
Pickles, cucumbers (1,800).....per 100.....	.75
Pepper, black, ground, pure, per sample,	
Colburn's choicest.....per pound.....	.18
Prunes, best quality, Turkish.....do.....	.09 <sup>1</sup> / <sub>2</sub>
Peaches, canned, 3-pound cans, Houston's	
Standard.....per dozen.....	2.25
Peas, canned, 2-pound cans, early June,	
Schrivers.....per dozen.....	1.35
Raisins, best quality, London layers, 3	
crown.....per pound.....	.14
Rice, Carolina, per sample, Head.....do.....	.05 <sup>1</sup> / <sub>2</sub>
Sugar:	
Brown, light, per sample, Keystone,	
C.....per pound.....	.04 <sup>1</sup> / <sub>10</sub>
Granulated, Standard, Franklin.....do.....	.04 <sup>9</sup> / <sub>10</sub>
White, powdered, Franklin.....do.....	.05 <sup>1</sup> / <sub>2</sub>
Salt:	
Fine, 56 pounds to bushel.....per bushel..	.60
Ground alum, 56 pounds to bushel,	
per bushel.....	.45
Soda:	
Sal.....per pound.....	.01 <sup>1</sup> / <sub>2</sub>
Cooking, bicarbonate.....do.....	.06
Starch, per sample.....do.....	.04 <sup>1</sup> / <sub>2</sub>
Soap:	
Toilet, best, per sample, Kirk & Co.'s,	
per dozen cakes.....	1.01
Castile, genuine mottled, per sample,	
per pound.....	.08 <sup>1</sup> / <sub>2</sub>
Hard, light, per sample.....do.....	.03 <sup>7</sup> / <sub>10</sub>
Laundry, Weaver, Kengla & Co., per	
sample or equal to.....per pound.....	.04 <sup>1</sup> / <sub>2</sub>
Pear's toilet, scented, 30 per cent	
glycerine, per dozen cakes.....	1.87
Babbitt, best, ½-pound cakes.....per cake..	.04 <sup>1</sup> / <sub>2</sub>
Syrup, per sample.....per gallon.....	.32
Tea:	
Green, per sample.....per pound.....	.27
English breakfast, best.....do.....	.68
Per sample, Japan, uncolored.....do.....	.34 <sup>1</sup> / <sub>2</sub>
Tobacco, chewing, per sample, B. F.	
Hanes' 3-ply or equal to.....per pound.....	.34
Tomatoes, canned, 3-pound cans, Hous-	
ton's.....per dozen.....	1.00
Tallow.....per pound.....	.14
Vinegar, best, Elmer's Golden Russet,	
per gallon.....	.12 <sup>1</sup> / <sub>2</sub>
Whisky, per sample.....per gallon.....	2.60
Wine:	
Sherry, genuine Spanish.....do.....	1.75
Port.....do.....	2.25

CLASS IX.—*Boots and shoes.*

<b>Shoes:</b>			
Children's, for Washington Asylum, per sample, 4 to 10½	per pair	\$0.52	
Misses', per sample, 11 to 2	do.	.67½	
<b>Shoes, men's, for Washington Asylum:</b>			
Metal-pegged brogan, per sample, 6 to 14	per pair	.78½	
Metal-pegged brogan, per sample, 6 to 14	per pair	1.00	
<b>Shoes, women's, for Washington Asylum:</b>			
Per sample, 3 to 9	per pair	.87½	
Do.	do.	1.04½	
<b>Shoes, boys', per sample, 1 to 5.</b>		per pair	\$0.72½
<b>Shoestrings:</b>			
Leather, per sample	per 100	.27	
Linen, per sample	do.	.23	
Slippers, women's, per sample	per pair	.68	
<b>Boots, rubber:</b>			
Men's, short leg, per sample	do.	2.00	
Men's, long leg, per sample, Goodyear Rubber Co., or equal to	per pair	3.40	
Men's, long leg, per sample, Rubber Footwear Co., or equal to	per pair	2.75	

CLASS X.—*Drugs.*

<b>Acid:</b>			
Acetic (Powers & Weightman), per pound		\$0.08	
Benzoic (Powers & Weightman), per ounce		.09	
Boracic (Wyeth)	per pound	.55	
Chronic	per ounce	.14	
Carbolic, Calvert's, No. 4	per pound	.45½	
Carbolic, crystalized	do.	.32	
Carbolic (commercial)	do.	.07½	
Citric (Powers & Weightman)	do.	.50	
Nitric, C. P. (Powers & Weightman), per pound		.50	
Oxalic	per pound	.11	
Pyrogalic	per ounce	.30	
Phosphoric, concentrated (Powers & Weightman)	per pound	.28	
Salicylic (Powers & Weightman), per pound		1.52	
Tannic (tannin) (Powers & Weightman)	per pound	1.35	
Hydrocyanic (Powers & Weightman), per ounce		.14	
Muriatic, C. P. (Powers & Weightman)	per pound	.18	
Sulphuric, aromatic	do.	.33	
Acacia, pulverized (gum arabic)	do.	.78	
Acetate of lead (Powers & Weightman), per pound		.20	
Aqua ammonia, concentrated	per gallon	.50	
Alum, pulverized	per pound	.07	
Ammon., carb. (Squibbs')	do.	.35	
Ammon., bromid. (Powers & Weightman), per ounce		.04	
Ammonia, iodide (Powers & Weightman), per ounce		.36	
Ammon., muriat., granulated (Powers & Weightman)	per pound	.21	
Ammon., spirits, aromatic	do.	.35	
Amyl, nitras (Squibbs')	per ounce	.30	
Antifebrine	do.	.24	
Antipyrin	do.	1.42	
Alcohol, 95 per cent.	per gallon	2.35	
Argent. nitrat (lunar caustic)	per ounce	.80	
Asafetida, pulverized	per pound	.25	
Atropia, sulp. (Powers & Weightman), per drachm		.53	
<b>Balsam:</b>			
Peru	per ounce	.12	
Tolu	do.	.04	
Bromine	do.	.16	
<b>Boxes:</b>			
Pill, assorted sizes, paper	per gross	.28	
Ointment, wooden, all sizes, best, per gross		.52	
<b>Bottles, assorted:</b>			
8-ounce and under	do.	2.00	
9 to 16 ounces	do.	5.00	
Boxes, powder, paper	do.	.95	
Bismuth, subnit (Squibbs')	per pound	2.15	
<b>Borax:</b>			
Pulverized	do.	.11	
Lump	do.	.11	
Bromo-caffeine, 4-ounce bottles (Keasby & Mattison)	per bottle	.73	
Calomel triturates (Sharp & Dohme), per 100		.10	
Carbon, bisulph.	per pound	\$0.16	
Capsules, 100 to a box, assorted	per box	.08	
Capsicum, powdered	per pound	.16	
Cerate, simple	do.	.33	
Collodion	do.	.75	
Columbo, pulverized	do.	.16	
Cantharides, powdered	do.	1.25	
Chloride of lime, in pound boxes	do.	.09	
Chloride of gold	per grain	.03½	
Chloral, hydrate (Powers & Weightman), per pound		1.40	
Chloroform (Squibbs), C. P.	per pound	1.24	
Cinchonidine, sulph (Powers & Weightman)	per ounce	.14	
Copaiba, balsam	per pound	.06	
Corks, vial, assorted	per gross	.12	
Charcoal, willow	per pound	.15	
Cosmoline	do.	.21	
Cotton, absorbent (Seabury & Johnson), per pound		.39	
Dextrine	per pound	.10	
<b>Emplast, adhesive, rubber, Mead's:</b>			
1 inch in width, on spools	per spool	.35	
2 inches wide, on spools	do.	.50	
<b>Emplast, belladonna, 5 inches wide, per yard</b>		.35	
Ether (Squibbs'), C. P.	per pound	1.10	
<b>Extracts:</b>			
Aconite, fld.	per ounce	.08	
Buchu, fld. (Sharp & Dohme)	do.	.08	
Belladonna, fld. (Sharp & Dohme), per ounce		.08	
Cinchona, comp., fld. (Sharp & Dohme), per pound		1.20	
Colocynth, comp. (Squibbs'), per ounce		.36	
Canabis ind., fld. (Sharp & Dohme), per ounce		.07	
Digitalis, fld. (Squibbs')	per ounce	.08	
Ergot, fld. (Squibbs')	per pound	1.75	
Ginger, Jamaica, fld. (Sharp & Dohme), per pound		.64	
Glycyrrhiza, fld.	per pound	.63	
Epicae, fld. (Sharp & Dohme), per ounce		.24	
Glycyrrhiza, pulv.	per pound	.41	
Gentian, comp., fld. (Sharp & Dohme), per ounce		.06½	
Henbane (Sharp & Dohme), solid, per ounce		.24	
Sarsaparilla, co., fld. (Sharp & Dohme), per pound		.98	
Stramonium, solid	per ounce	.19	
Uva ursi, fld. (Sharp & Dohme), per ounce		.05	
Nucis vomicae, solid	per ounce	.24	
Jaborandi, fld. (Sharp & Dohme), per ounce		.10	
Pink root and senna, fld. (Sharp & Dohme)	per ounce	.08	
Wild cherry, fld.	per pound	.78	
Quebracho, fld. (Sharp & Dohme), per pound		1.75	
Viburnum prunifolium, fld. (Sharp & Dohme)	per pound	.65	
Valerian, fld. (Sharp & Dohme), per ounce		.06	
Cascaar sagrada, solid	per ounce	.25	



CLASS X.—*Drugs*—Continued.

## Extracts—Continued.

Cascara sagrada, fld. (Sharp & Dohme), per ounce	\$0.08
Rhatany. fld. (Sharp & Dohme), per ounce	.06
Arnica flowers, fld. (Sharp & Dohme), per ounce	.06
Catechu, fluid (Sharp & Dohme), per ounce	.05
Ferri, sulphas (copperas)..... per pound	.01
Ferri, pyrophosphate (Squibbs's), per ounce	.05
Funnels, glass, 8 to 32 oz..... each	.20
Gentian, pulv..... per pound	.10
Gelatin, Nelson's..... do	.65
Ginger, powdered..... do	.14
Graduated glasses, 1 to 16 oz..... each	.34
Glycerin, pure (Gordon's)..... per pound	.20
Glycyrrhiza comp., pulv..... do	.23
Gum, camphor (Pfizer)..... do	.50
Hydrochlorate of cocaine (Squibbs's), per grain	.02
Hydrarg., chlor. mit. (English)..... per ounce	.09
Honey, best, strained..... per pound	.14
Iodoform, pulv. (Powers & Weightman), per pound	4.35
Iodine, resublimed (Powers & Weightman), per ounce	.24
Kramaria, pulv..... per pound	.20
Lycopodium..... per ounce	.04
Licorice root, pulv..... per pound	.10
Lini farini, pulv. (flaxseed meal)..... do	.05
Liquor:	
Potass. arsen. (Fowler's solution)..... do	.10
Ferri chlor. for tinct..... do	.16
Potass..... do	.17
Lactopeptin..... per ounce	.65
Listerine..... per bottle	.70
Morphine, sulph., in 1-oz. bottles. (Powers & Weightman)..... per ounce	2.35
Magnes., sulph. (Epsom salts)..... per pound	.01½
Opii, pulv., powdered opium (Squibbs's), per ounce	.35
Oil of bitter almonds..... per ounce	.20
Oil, bergamot..... do	.20
Oil, anise..... do	.12
Ol. cinnamon..... do	.09
Ol. copaib..... do	.09
Oil of cloves..... do	.09
Oil of myrcia..... do	.25
Ol. limonis..... do	.10
Oil of neroli..... per drachm	.24
Ol. ricini (castor oil)..... per gallon	1.22
Oil of lavender..... per ounce	.10
Oil of peppermint..... do	.18
Ol. olivar (olive oil)..... per gallon	.69
Ol. morrhue (cod-liver oil)..... do	.85
Oil of rose..... per drachm	.40
Oil origanum..... per pound	.35
Potass:	
Bitat. (Powers & Weightman)..... do	.31
Iodidi (Powers & Weightman)..... do	2.78
Citrate..... do	.50
Chlor., crys. (Powers & Weightman), per pound	.18
Bicarb. (Powers & Weightman), per pound	.15
Bromid. (Powers & Weightman), per pound	.36
Pill, atropia (Sharp & Dohme)..... per 100	.25
Pill, cathar., comp., sugar-coated (Sharp & Dohme)..... per pound	1.00
Pill, aloin., strych. et bellad., No. 2 (Sharp & Dohme)..... per 100	.27
Pill, podophyllin, co. (Sharp & Dohme), per 100	.32
Pill, neuralgic (Brown-Séguard), S. & D., per 100	.60

Paper, white, blue, and red..... per ream	\$2.25
Plasters:	
Allcock's porous..... per dozen	1.10
Mustard, "strong," J. & J..... do	.20
Powder, disinfectant:	
Egyptian carbolic..... per pound	.10
Robacher's Peerless, 1-pound boxes, per pound	3.50
Powder, insect, Persian, light..... per pound	.25
Quinine, sulph. (Powers & Weightman), per ounce	.33
Quinidia, sulph. (Powers & Weightman), per ounce	.45
Rhubarb, powdered..... per pound	.50
Soda:	
Bicarb..... do	.03½
Salicyl. (Powers & Weightman), per pound	.35
Soda et potass., tart., Rochelle salts (Powers & Weightman)..... per pound	.30
Soap:	
Castile, white, Conti's best..... do	.12½
Spanish, mottled..... do	.05
Carbolic..... do	.12
Skins, chamois, 25 by 33 inches..... each	.39
Spatulas, assorted..... per dozen	2.60
Sulphur, pulverized..... per pound	.64
Sponge:	
Sheep's wool (Florida)..... do	1.78
Surgeons', silk..... do	2.50
Spt. ether, comp., Hoffman's anodyne (Powers & Weightman)..... per pound	.48
Sulphonal..... per ounce	1.38
Spt. nitre dul., sweet spirits niter (Powers & Weightman)..... per pound	.40
Spt. laven., co..... do	.34
Syrup:	
Ferri, iodidi..... do	.35
Scillæ (squills)..... do	.16
Pruni, virg. (wild cherry)..... do	.20
Strychnia, sulph..... per drachm	.15
Santonine (Powers & Weightman), per ounce	.29
Tinctures:	
Aconit., R..... per ounce	.04
Arnica..... per gallon	1.04
Digitalis..... per ounce	.04½
Gentian, co..... per pound	.23
Tablets, hypodermic:	
Of ergotin, 100 tablets in bottle (Sharp & Dohme), ½ gr..... per bottle	.53
Sulph. of morphia (Sharp & Dohme), 100 in bottle, ½ and ¼ gr. per bottle	.38
Sulph. of atropia (Sharp & Dohme), 100 in bottle, ½ gr..... per bottle	.31
Apomorphia (Sharp & Dohme), 100 in bottle, ½ gr..... per bottle	.75
Aconitine (Sharp & Dohme), 100 in bottle, ½ gr..... per bottle	.60
Digitalin (Sharp & Dohme), pure, 100 in bottle, ½ gr..... per bottle	.45
Morp. atrop. Nos. 1 and 4 (Sharp & Dohme), 100 in bottle..... per bottle	.45
Pilocarpine muriate, 100 in bottle, ½ gr..... per bottle	.90
Tinct, iodini..... per pound	.55
Tinct, opii (laudanum)..... do	.55
Ung. hydrarg, 10 per cent..... do	.48
Ung. hydrarg nitras..... per ounce	.04½
Vaseline..... per pound	.24
Valerian, powdered..... do	.23
Vinum antimonii..... do	.25
Wax, best white..... do	.50
Wine of tar..... do	.30
Zinc, oxide (Squibbs's)..... do	.20
Zinc, sulph. (Squibbs's)..... do	.25
Zingiberis, Jam, pulv..... do	.22



## 644 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## CLASS XI.—Glass, paints, and varnish.

Alcohol, 95 per cent.....	per gallon..	\$2. 40	Red vermillion:		
Asphaltum .....	do.....	. 48	English, dry .....	per pound..	\$0. 65
Benzine.....	do.....	. 12	American, dry.....	do.....	. 20
Brown:			In oil, English.....	do.....	. 70
Spanish, dry .....	per pound..	. 01½	Red, Indian:		
Burnt sienna, dry.....	do.....	. 05	Dry .....	do.....	. 06
Burnt sienna, in oil.....	do.....	. 12	In oil .....	do.....	. 13
Burnt umber, dry.....	do.....	. 04½	Red, Venetian:		
Burnt umber, in oil.....	do.....	. 11½	In oil .....	do.....	. 08½
Prince's metallic, dry.....	do.....	. 01½	Dry .....	do.....	. 01½
Black, lamp:			Rotten stone, powder.....	do.....	. 05
In papers, dry .....	do.....	. 07½	Rosin, N. C.....	do.....	. 02
"Eddie's refined," in papers, dry, per			Spirits of turpentine.....	per gallon..	. 43
pound.....		. 20	Varnish:		
Black paint, in oil.....	per pound..	. 11	No. 1, coach.....	do.....	1. 50
Black, coach, in oil.....	do.....	. 14	Coach, wearing body.....	do.....	3. 20
Blue, ultramarine:			Furniture (turpentine).....	do.....	. 80
Dry .....	do.....	. 09	Damar.....	do.....	1. 35
In oil .....	do.....	. 18	Pure shellac.....	do.....	2. 60
Blue, Prussian:			Whiting.....	per pound..	. 01
Dry .....	do.....	. 26	Wicking, lamp, cotton.....	do.....	. 25
In oil .....	do.....	. 29	Wicks, lamp:		
Brushes, paint:			No. 0, ¼-inch.....	per gross..	. 35
Clinton's, 5-0.....	do.....	. 70	No. 1, ¼-inch.....	do.....	. 37
Clinton's, 6-0 (pound).....	do.....	1. 10	No. 2, 1 inch.....	do.....	. 50
Brushes, wall:			Yellow chrome:		
Clinton's, 3-inch.....	do.....	. 30	Extra dry .....	per pound..	. 11
Clinton's, 3½-inch.....	do.....	. 37½	No. 1, in oil.....	do.....	. 14
Clinton's, 4-inch.....	do.....	. 49	Yellow, French ochre:		
Clinton's, 4½-inch.....	do.....	. 69	In oil .....	do.....	. 08
Clinton's, 5-inch.....	do.....	. 94	Dry .....	do.....	. 01½
Brushes, sash tools:			Glass, equal to Chesapeake brand, as fol-		
No. 6.....	do.....	. 13½	lows:		
No. 7.....	do.....	. 18½	8 by 10.....	per light..	. 03
No. 8.....	do.....	. 22	8 by 20.....	do.....	. 07
No. 9.....	do.....	. 27	9 by 12.....	do.....	. 04
No. 10.....	do.....	. 30	9 by 14.....	do.....	. 05
Brushes, Fitch:			9 by 18.....	do.....	. 07
No. 1.....	do.....	. 04	10 by 12.....	do.....	. 04½
No. 2.....	do.....	. 07	10 by 14.....	do.....	. 05
No. 1.....	do.....	. 09½	10 by 16.....	do.....	. 06
No. 1½.....	do.....	. 15	10 by 18.....	do.....	. 07
Chimneys, lamp:			10 by 20.....	do.....	. 08
No. 1.....	per dozen..	. 40	10 by 22.....	do.....	. 09
No. 2.....	do.....	. 50	10 by 24.....	do.....	. 10
Dryer, patent liquid.....	per gallon..	. 28	12 by 12.....	do.....	. 05
Japan.....	do.....	. 48	12 by 14.....	do.....	. 07
litharge.....	per pound..	. 07½	12 by 16.....	do.....	. 08
Glaziers' points.....	per package..	. 06½	12 by 18.....	do.....	. 08½
Green:			12 by 20.....	do.....	. 09½
Chromo, dry.....	per pound..	. 05½	12 by 23.....	do.....	. 10
Chrome, in oil, best.....	do.....	. 13	12 by 26.....	do.....	. 14
Imperial French, dry.....	do.....	. 07	12 by 24.....	do.....	. 12
Imperial French, in oil.....	do.....	. 14	12 by 28.....	do.....	. 15
Paris, dry.....	do.....	. 44	12 by 32.....	do.....	. 18
Glue:			12 by 33.....	do.....	. 19
Common.....	do.....	. 09½	14 by 14.....	do.....	. 08
White.....	do.....	. 17	14 by 16.....	do.....	. 09
Irish.....	do.....	. 13	14 by 18.....	do.....	. 10
Liquid, Le Page's.....	per pint..	. 33	14 by 20.....	do.....	. 11½
Gum shellac.....	per pound..	. 24½	14 by 21.....	do.....	. 12
Hard-oil finish:			14 by 22.....	do.....	. 12
Walnut.....	do.....	. 95	14 by 24.....	do.....	. 13
Light.....	do.....	1. 05	14 by 26.....	do.....	. 15
Lead, Lewis's white, in oil.....	do.....	. 06 <sup>7</sup> / <sub>10</sub>	14 by 28.....	do.....	. 19
Naphtha.....	per gallon..	. 12	14 by 30.....	do.....	. 22
Oil, sperm.....	do.....	. 78	16 by 16.....	do.....	. 11
Linseed, raw.....	do.....	. 55	16 by 18.....	do.....	. 12
Linseed, boiled.....	do.....	. 57	16 by 20.....	do.....	. 12½
Lard, winter strained.....	do.....	. 56	16 by 22.....	do.....	. 14
Neat's-foot.....	do.....	. 56	16 by 26.....	do.....	. 22
Cylinder, valvoline, Leonard & Ellis,			16 by 32.....	do.....	. 26
or equal to, per samples submitted,			18 by 20.....	do.....	. 15
per gallon.....		. 55	18 by 30.....	do.....	. 26
Cylinder, U.S. Navy, standard, per			18 by 36.....	do.....	. 35
samples submitted.....	per gallon..	. 45	18 by 38.....	do.....	. 38
Machine.....	do.....	. 28	20 by 20.....	do.....	. 23
Plaster of Paris.....	per barrel..	1. 75	20 by 24.....	do.....	. 24
Putty:			20 by 28.....	do.....	. 28
White.....	per pound..	. 01 <sup>3</sup> / <sub>10</sub>	22 by 24.....	do.....	. 26
Colored.....	do.....	. 02 <sup>1</sup> / <sub>10</sub>	22 by 44.....	do.....	. 60
Plumbago.....	do.....	. 10	22 by 46.....	do.....	. 65
Red lead:			24 by 30.....	do.....	. 37
Dry.....	do.....	. 06 <sup>2</sup> / <sub>10</sub>	28 by 28.....	do.....	. 47
In oil.....	do.....	. 15			

## CLASS XII.—Lumber.

Ash, all widths and lengths, prime:			Poplar, all widths and lengths, prime:		
4-4.....	per M..	\$44.00	5-4.....	per M..	\$33.00
8-4.....	do.....	46.00	4-4.....	do.....	28.00
Cedar posts:			5-8.....	do.....	28.00
8 feet long, 7 inches in diameter at large end.....	each..	.25	12-4.....	do.....	35.00
10 feet long, 8 inches in diameter at large end.....	each..	.40	1-inch.....	do.....	28.00
Each additional foot over 10 feet, per foot.....		.04	8-4.....	do.....	33.00
Cherry, prime, all widths and lengths:			Shingles, No. 1, cypress hearts, width 6 inches, length 20 inches (sawed).....		per M.. 7.50
4-4.....	per M..	95.00	Siding, 5-8, white pine:		
1-inch.....	do.....	90.00	First and second quality.....		per M.. 25.00
8-4.....	do.....	100.00	Barn quality.....		do..... 19.00
Dressing, 1 or 2 sides.....	do.....	4.00	Stepping, 5-4, heart, Florida.....		do..... 32.50
Flooring:			Stakes, oak, 1½ inches square by 12 inches long, sharpened at one end.....		per M.. 7.40
N. C., 4-4 and 5-4, No. 1, 3½ inches and under.....	per M..	22.50	Virginia pine:		
White pine, 5-4 and 4-4, selects, No. 1.....	per M..	40.00	4-4 culls, 7 inches wide and over, 12, 14, and 16 feet long.....		per M.. 11.50
Georgia or Florida, 4-4 and 5-4 heart, No. 1, 3½ inches and under.....	per M..	27.50	4-4, stock, culls, 1 by 12.....		do..... 13.65
Joists and scantling, Virginia pine, all sizes:			Selects, 6-4.....		do..... 22.50
16 feet and under in length.....	per M..	12.70	Timber, all sizes, 30 feet and under, per M.....		16.00
18 to 24 feet long.....	do.....	13.75	White pine, fine common, dressed, 2 sides:		
Joists, scantling, and timber, white pine, all sizes:			4-4.....		per M.. 34.00
Under 30 feet in length.....	per M..	33.00	5-4.....		do..... 37.50
30 feet in length and over.....	do.....	39.00	6-4.....		do..... 37.50
Joists, scantling, and timber, Georgia pine:			8-4.....		do..... 37.50
All sizes, under 22 feet in length, per M.....		25.00	White pine, 4-4, Michigan, selects:		
All sizes, 22 feet to 35 feet long.....	do.....	28.00	Dressed, 2 sides.....		per M.. 39.00
Clear heart, all sizes, under 22 feet in length.....	per M..	33.00	Partition stuff, 3½ inches wide.....		do..... 38.50
Clear heart, all sizes, 22 feet to 25 feet long.....	per M..	37.00	White pine, Michigan, selects, dressed, 2 sides:		
Laths, 4 feet, spruce.....	do.....	2.60	5-4.....		per M.. 42.50
Oak plank, white oak, 2 and 3 inch (prime), any length under 22 feet.....	per M..	27.00	6-4.....		do..... 42.50
Oak timber, white oak, clear heart, 12 by 12 and under, less than 22 feet long, per M.....		30.00	8-4.....		do..... 42.50
Oak plank, 2 and 3 inch (sound, common, bridge, white oak), any lengths required, per M.....		24.50	White pine, 4-4 culls (stock), dressed, 2 side,.....		per M.. 18.70

## CLASS XIII.—Forage.

Bran (20 pounds to the bushel), per 100 pounds.....		\$1.20	Meal:		
Corn:			Flaxseed, best quality (32 pounds to the bushel).....		per pound.. \$0.06
Shelled and cleaned (56 pounds to the bushel).....	per bushel..	.85	Oats, prime, white, recleaned (no new oats received, 32 pounds to the bushel), per bushel.....		.74
Corn in ear (35 pounds to the bushel), per bushel.....		.45	Shorts (28 pounds to the bushel), per 100 pounds.....		1.25
Hay:			Straw, long rye, bright, per 100 pounds.....		1.12½
Long timothy, prime (net weight), per 100 pounds.....		1.05	Rye, chop (28 pounds to the bushel), per 100 pounds.....		1.80
Cut, prime (net weight), per 100 pounds.....		1.10	White middlings (35 pounds to the bushel), per 100 pounds.....		1.30
Meal:			Rock salt, lump.....		.01½
Corn (48 pounds to the bushel) per 100 pounds.....		1.75			

## CLASS XIV.—Fresh meat and corned beef.

Fresh beef:			Corned beef, best quality.....		per pound.. .03 14
Roasts, best quality.....	per pound..	.11	Mutton, best quality, in sides.....		do..... .08 10
Rounds, best quality.....	do.....	.08	Lamb, best quality, in quarters.....		do..... .12½
Steaks, sirloin, best quality.....	do.....	.13 10			
Cuts, other than above specified, per pound.....		.03 10			

## CLASS XV.—Lamp-posts and miscellaneous castings.

Lamp-posts, present pattern, 280 pounds, with flanges and arms, including one coat of red-lead paint, arms to be tapped and drilled for two bolts.....		\$7.75	which may be ordered by the Commissioners of the District of Columbia, as per samples, patterns, or drawings, to be furnished from time to time, per pound.....		\$0.02½
Miscellaneous castings — alley grates, drops, man-hole frames and covers, pump-grates, and all other castings.....			Manhole irons, wrought iron.....		each.. 20.00

CLASS XVI.—*Fuel.*

## Coal:

Cumberland, run of mine.....per ton..	\$3.24
Splint.....do.....	5.60
Red ash, egg.....do.....	5.00
Red ash, stove.....do.....	5.15
White ash, furnace.....do.....	4.79
White ash, egg.....do.....	4.82
White ash, stove.....do.....	4.98
White ash, chestnut.....do.....	4.68
Lykens Valley, stove.....do.....	5.58

## Wood:

Oak, long.....per cord..	\$4.50
Oak, sawed and split.....do.....	5.30
Pine, long.....do.....	4.10
Pine, sawed and split.....do.....	5.23
Prices for stowing coal (about 6,000 tons), per ton.....	.12
Prices for stowing wood (about 450 cords) per cord.....	.30

CLASS XVII.—*Dry goods.*

## Blankets:

10-4, woolen, white, 5 pounds, Saxon- ville or equal to.....per pair..	\$3.20
Colored, wool, per sample.....do.....	2.17

## Buttons:

For shirts, porcelain, No. 20 per gross..	.06
For drawers, porcelain, No. 3.....do.....	.07
For coats, horn, black.....do.....	.25
For pants, metal.....do.....	.05

Bed-spreads, white per sample.....each..	1.09
--	------

## Calico:

As per sample, Merrimack, per yard..	.05½
Shirting, per sample, Merrimack, per yard.....	.04½

Crash toweling, 20-inch per sample.....do.....	.12½
--	------

## Cotton:

Unbleached, 4-4 wide, Darlington, per sample.....per yard..	.06½
Sheeting, bleached, 6-4 wide, Fruit of Loom, per sample.....per yard..	.14½
Sheeting, unbleached, 6-4 wide, Cohas- set, per sample.....per yard..	.13½
Sheeting, bleached, 4-4 wide, Fruit of Loom, per sample.....per yard..	.08½
Sheeting, bleached, 8-4 wide, per sample.....per yard..	.19
5-4 wide, bleached, per sample, Pacific Mills.....per yard..	.10½
5-4 wide, unbleached, per sample, Con- tinental.....per yard..	.10½
42-inch, unbleached, Continental, per sample.....per yard..	.09½
10-4, bleached, per sample, Lockwood, per yard.....	.20
Unbleached, yard wide, for women's underclothing, per sample, Delta, 350, per yard.....	.06½
Cheese cloth, 4-4, Monarch, B. B., for bandages, per sample.....per yard..	.03½
4-4, Calvert, B. B., for bandages, per sample.....per yard..	.05½

## Cotton—Continued.

Spool, Clark's.....per dozen..	\$0.42½
Flannel:	
Wool, red, per sample, "A. B.," per yard.....	.23
Wool, white, per sample.....do.....	.38
Wool, gray, per sample, Dover.....do.....	.22
Cotton, "A," S. & C., per sample, per yard.....	.08½
Gingham, per sample.....per yard..	.10
Hose:	
Women's, cotton, per sample per pair.....	.06½
Women's wool, per sample.....do.....	.16½
Women's, blue mixed, per sample per pair.....	.07½
Children's, per sample.....do.....	.07
Kentucky jeans, per sample.....per yard..	.17
Needles, assorted sizes.....per paper..	.03
Melton, per sample, for almshouse men, per yard.....	.33½
Pillow slips, any size.....each..	.12½
Prison cloth, 6-4 wide, stripe 1½ inch wide, woolen, per sample submitted, per yard..	.80
Pins.....per paper..	.04
Sheets:	
8-4 wide, 2½ yards long.....each..	.46
10-4 wide, 2½ yards long.....do.....	.49
Socks, men's:	
Woolen, per sample.....per pair..	.12
Cotton, per sample.....do.....	.07½
Shirting:	
Hickory, per sample, 28-inch, Uncas- ville, per yard.....	.07½
Percale per sample, per yard.....	.10½
Thread, brown, black, and white, linen, best (spools).....per dozen..	.80
Ticking for bedsacks, 4-4 wide, Omega, A. C. A., per sample.....per yard..	.13½
Towels, per sample.....per dozen..	2.40

CLASS XVIII.—*Ice.*

Ice (best Kennebec or equal to).....per 100 pounds..	\$0.34½
--	---------

CLASS XIX.—*Telegraph and telephone supplies.*

Sulphate of copper (bluestone), best qual- ity.....per pound..	\$0.05½
Sal ammonia, best.....do.....	.08½
Sheet copper, No. 30 (Brown & Sharp's gauge), cut in strips to order, per pound	.26½
Molded zincs (amalgamated), for Le Clanche battery.....each..	.04½
Molded zincs, crowfoot.....per pound..	.07½
Glass jars, No. 1, 6 by 8 inches.....each..	.19½
Le Clanche battery, complete.....do.....	.50
The Burnley dry battery.....do.....	.59
Cold-drawn copper wire, No. 12, per pound	.17½
Galvanized-iron wire, No. 12, extra best, best quality.....per pound..	.05½
Copper wire, Okonite insulation:	
No. 16.....per foot..	.01½
No. 12.....do.....	.02½
Office wire (copper), wound and braided, paraffined and polished:	
No. 16.....per pound..	.24½
No. 18.....do.....	.24½
Copper wire:	
Two-conductor annunciator, No. 16, per foot.....	.01

## Copper wire—Continued.

Twin Okonite cable, No. 12.....per foot..	\$0.04½
Twin Okonite cable, No. 14.....do.....	.03½
Twin Okonite cable, No. 16.....do.....	.02½
Register paper, cut and wound on spools to order.....per pound..	.16
Double telephone cords:	
Tips complete.....each..	.15½
Short.....do.....	.15½
Glass screws (insulators), Western Union, per hundred.....	3.00
Brackets, screw, oak, painted.....do.....	1.37
Double-pointed (telegraph) tacks, per pound.....	.13½
Cross-arms, 3½ by 4½ inches, best white pine, painted, with pins, complete, per linear foot.....	.07
Screw-bolts, with washers, ½ inch by 7 inch.....per hundred..	2.20
Climbers, extra spring steel, with straps (Stubbs).....per pair..	1.74



## CLASS XX.—Saddlery.

Blankets:			Halters, 5 ring, per sample.....each..	\$0.77
Horse, per sample.....each..	\$6.82		Harness dressing, quarts, Frank Miller's,	
Horse, per sample.....do....	4.28		per dozen.....	2.98
Lap-robe, per sample.....do....	2.88		Harness oil, quarts, Frank Miller's,	
Brushes:			per dozen.....	4.10
Horse, per sample.....per dozen..	25.43		Machine, clipping (New World's) Amer-	
Horse, per sample.....do....	15.38		ica, Star brand, reversible.....each..	2.75
Mane, per sample.....do....	3.88		Net:	
Mane, per sample.....do....	2.52		Leather, per sample.....do....	1.95
Bridles, horse, box loops, per sample,			Ear, per sample.....do....	.50
each.....	1.93		Snap, German harness:	
Bits, bridle, per sample.....per dozen..	10.10		1/2-inch.....per dozen..	.10
Combs:			1/2-inch.....do....	.10
Curry, per sample.....do....	1.22		1/2-inch.....do....	.10
Curry, per sample.....do....	.93		1/2-inch.....do....	.10
Mane, per sample.....do....	.83		1/2-inch.....do....	.10
Cloths, rubbing, per sample.....do....	3.67		1/2-inch.....do....	.10
Harness:			2-inch.....do....	.10
Buggy, single, full nickel mounted,			Straps:	
wire pattern, breast collar, 1 1/2 inch			Hitching, 1 1/2 inch wide, 6 feet long,	
traces, 3 1/2 inch tree, flat reins (russet			German snap on one end and buckle	
or black) best oak-tanned leather, all			and billet on the other end.....each..	.33
hand made with 10 stitches to the			Hame.....do....	.11
inch.....each..	20.95		Halter, 1 1/2-inch wide, 6 feet long,	
Coupe, single, full nickel mounted,			buckle and billet on one end.....each..	.33
wire pattern, full nickel hames, pat-			Surcingles, webbing:	
ent leather case collar, 5-inch tree, 4			Per sample.....do....	.16
rows stitching in traces, flat reins			Per sample.....do....	.16
(russet or black), 1 1/2-inch traces,			Whips:	
leather-lined pad to saddle, center			6-foot, per sample.....do....	.65
bar buckles, best oak-tanned harness			6-foot, per sample.....do....	.78
leather, all hand made, 10 stitches to			7-foot, per sample.....do....	.88
the inch.....each..	31.95			
Wagon, single, full nickel mounted,				
wire pattern, iron hames, low top,				
good plain leather collar, 5 1/2-inch tree,				
1 1/2-inch traces, 2 rows stitching in				
traces, flat reins, black, all hand				
made, best oak-tanned harness				
leather, 8 stitches to the inch.....each..	20.85			

## School furniture.

Grammar-school desks and chairs:		Primary school desks and chairs—Cont'd.	
No. 1.....each..	\$2.80	No. 6.....each..	\$2.17
No. 2.....do....	2.75	High-school desks and chairs, lifting	
No. 3.....do....	2.57	lid.....each..	4.25
No. 4.....do....	2.45	Assembly or opera chairs.....do....	2.45
Primary school desks and chairs:		Teachers' desks.....do....	12.50
No. 4.....do....	2.40	Teachers' tables.....do....	4.95
No. 5.....do....	2.27		

## School readers, slates, etc.

Readers—The Normal Course in Reading:		Slate pencils, in boxes of 100 each, per box	.07 1/2
Primer.....per dozen..	\$1.80	Diamond rubbers, academic, small, per	
First.....do....	2.40	pound.....	.74
Second.....do....	3.60	Manilla paper, 24 by 36 inches, 25 pounds	
Third.....do....	4.80	to ream, per sample (cut into 16 pieces	
Fourth.....do....	6.00	and put into packages of 100 each), per	
Spencer's Primary Writing Cards.....do....	.95	ream.....	1.48
Spencer's Writing Tablets, No. 1.....do....	.95	Drawing tablets, size 7 1/2 by 9 1/2, quality as	
Slates, protected edges, 6 1/2 by 10 inches, per		per sample (stiff back, 25 pieces to tab-	
dozen.....	.63	let), per thousand.....	31.60



Y.

---

REPORT  
OF THE  
HEALTH OFFICER OF THE DISTRICT OF COLUMBIA.  

---

1892.

---





## OFFICERS OF THE HEALTH DEPARTMENT.

### HEALTH OFFICER.

CHARLES M. HAMMETT, M. D.

### CHIEF CLERK AND DEPUTY HEALTH OFFICER.

S. P. BAYLY, Jr.

### CLERKS.

B. F. PETERS.  
W. B. MOORE.

B. J. ACCINELLY,  
M. F. MILLS.

### SANITARY INSPECTORS.

A. J. HEIRD.  
T. W. PARSONS.  
W. D. HUGHES.

THOMAS M. SHEPHERD.  
T. N. CONRAD.  
C. H. WELCH.

### INSECTOR OF PLUMBING.

SAMUEL A. ROBINSON.

### FOOD INSPECTORS.

J. R. MOTHERSHEAD.

ED. FITZGERALD.

W. C. CHASE.

### INSPECTOR OF MARINE PRODUCTS.

GWYNN HARRIS.

### POUNDMASTER.

SAMUEL EINSTEIN.

### MESSENGER.

ORLANDO KING.

### SCARLET FEVER AND DIPHTHERIA SERVICE.

CHAS. J. OSMUN, M. D., medical inspector.  
G. T. RICHARDSON, driver and assistant.

### PHYSICIANS TO THE POOR.

LOUIS MACKALL, Jr., M. D.  
R. A. NEALE, M. D.  
J. V. CARRAHER, M. D.  
F. C. EWING, M. D.  
H. DARLING, M. D.  
S. L. HANNON, M. D.  
M. A. CUSTIS, M. D.

C. R. COLLINS, M. D.  
E. C. C. WINTER, M. D.  
D. OLIN LEECH, M. D.  
P. S. ROY, M. D.  
R. A. PYLES, M. D.  
W. M. SPRIGG, M. D.  
B. F. GIBBS, M. D.  
J. W. CHAPPELL, M. D.





## REPORT OF THE HEALTH OFFICER.

GENTLEMEN: I have the honor to submit the following report of the operations of this department for the fiscal year ending June 30, 1892, being the twentieth annual report of the bureau and the fourteenth under its present organization.

The statements presented comprise reports upon the sanitary inspection service, inspection of food, marine products, plumbing and drainage, collection and removal of garbage, night soil, and dead animals, impounding and regulating the running at large of domestic animals, the care of sick and indigent persons, the prevention of the introduction and spread of contagious diseases, and other sanitary matters, together with a complete record of vital statistics of the District of Columbia.

The population is placed at 260,000, which number is based upon the recent census of the District, taken by the police department under the direction of the Commissioners, which gave 257,193 as the actual count. In addition thereto 2,807 are estimated as inmates of public institutions.

During the year the general health has compared favorably with that of other years. The number of deaths was 6,098, as against 5,720 for last year, and the death rate was 23.4 as compared with 22.8 in the preceding year. In the zymotic, or preventable class, the death rate was but 4.99 per 1,000 inhabitants. For the whites the rate for this class was 4.20, and for the colored the rate was 6.62, as compared with 7.04 last year. The mean average rate for the whole population for the past fourteen years was 23.59 per 1,000. That for the whites was 18.57 and for the colored 33.72.

Herewith are presented statements A, B, and C, which give the number of deaths for the year, arranged under the five general classes, and thereto are added the percentages to total deaths under each class, and also the death rates. These statements are in so concise a form as to give a comprehensive view that will be convenient for those interested in vital statistics who have not leisure to peruse the more extensive and detailed exhibits that form the appendix to this report.

STATEMENT A.—*Showing deaths by classes, arranged by sex and color, with percentages and annual death rates, for the year ended June 30, 1892.*

Causes of disease.	Deaths.							Percentages to total deaths.				Annual death rate.		
	White.		Colored.		White.	Col'd.	Total.	White.		Colored.		White.	Col'd.	Total.
	M.	F.	M.	F.				M.	F.	M.	F.			
Zymotic .....	395	340	295	269	735	504	1,299	21.4	21.3	21.5	20.9	4.20	6.62	4.99
Constitutional .....	306	299	320	308	605	628	1,233	16.6	18.7	23.4	23.9	3.46	7.38	4.74
Local .....	922	731	571	562	1,653	1,133	2,786	49.9	45.9	41.7	43.7	9.45	13.31	10.71
Developmental .....	123	192	124	119	315	243	558	6.6	12.0	9.1	9.3	1.80	2.85	2.15
Violence .....	101	33	59	29	134	88	222	5.5	2.1	4.3	2.2	.76	1.03	.85
Total .....	1,847	1,595	1,369	1,287	3,442	2,656	6,098	100.00	100.00	100.00	100.00	19.67	31.19	23.44

654 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

STATEMENT B.—Showing deaths by classes, arranged by sex and color, with percentages and annual death-rates, for the year ended June 30, 1891.

Causes of disease.	Deaths.							Percentages to total deaths.				Annual death rate.		
	White.		Colored.		White.	Col'r'd.	Total.	White.		Colored.		White.	Col'r'd.	Total.
	M.	F.	M.	F.				M.	F.	M.	F.			
Zymotic .....	335	308	287	276	643	563	1,206	19.7	21.86	22.14	20.92	3.78	7.04	4.82
Constitutional .....	307	291	299	321	598	620	1,218	18.1	20.65	23.10	24.34	3.52	7.75	4.87
Local .....	835	614	552	553	1,449	1,105	2,554	40.2	43.58	42.63	41.92	8.53	13.81	10.22
Developmental .....	131	165	104	140	296	244	540	7.7	11.71	8.02	10.62	1.74	3.05	2.16
Violence .....	89	31	53	29	120	82	202	5.3	2.20	4.10	2.20	.70	1.03	.81
Total .....	1,697	1,409	1,205	1,319	3,106	2,614	5,720	100.00	100.00	100.00	100.00	18.27	32.68	22.88

STATEMENT C.—Showing population, deaths, and death rates for seventeen years ended June 30, 1892.

Years.	Population.			Deaths.			Death rates.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
1876 .....	106,741	50,859	157,000	2,086	2,074	4,160	19.54	40.78	26.40
1877 .....	109,505	52,870	162,375	2,187	2,021	4,208	19.97	38.22	25.91
1878 .....	112,340	54,960	167,300	2,166	2,065	4,231	19.28	37.57	25.29
1879 .....	115,247	57,130	172,377	2,196	2,113	4,309	19.05	36.90	24.99
1880 .....	118,236	59,402	177,638	2,085	2,121	4,206	17.63	35.71	23.68
1881 .....	121,300	61,760	183,060	2,205	1,931	4,136	18.18	31.27	22.59
1882 .....	124,441	64,212	188,653	2,353	2,818	4,571	18.91	34.54	24.23
1883 .....	126,300	65,680	191,980	2,270	2,016	4,286	17.97	30.69	22.33
1884 .....	130,700	69,300	200,000	2,576	2,238	4,814	19.71	32.29	24.07
1885 .....	130,700	69,300	200,000	2,610	2,388	4,998	19.97	34.45	24.99
1886 .....	136,000	69,300	205,300	2,442	2,232	4,674	17.96	32.35	22.80
1887 .....	140,000	70,000	210,300	2,484	2,181	4,665	17.74	31.15	22.21
1888 .....	150,000	75,000	225,000	2,778	2,262	5,040	18.52	30.16	22.40
1889 .....	170,000	80,000	250,000	2,713	2,439	5,152	15.96	30.49	20.60
1890 .....	170,000	80,000	250,000	2,934	2,630	5,564	17.25	32.87	22.25
1891 .....	170,000	80,000	250,000	3,106	2,614	5,720	18.27	32.68	22.88
1892 .....	175,000	85,000	260,000	3,442	2,656	6,098	19.67	31.19	23.44
Mean death rates .....							18.57	33.72	23.59

## SYNOPSIS.

The annexed tables will show the extent and nature of the work performed and results accomplished.

There were 16,911 nuisances reported during the year; and 56,060 pounds of meat and poultry and game, 35,358 melons, 5,550 bushels of fruits, and a large amount of miscellaneous items, offered in the market as vegetables, berries, oranges, lemons, grapes, eggs, butter, and in fact all the list of edibles presented for sale in the great markets of the city, were condemned as unfit for food.

Examinations into and reports were made upon 5,356 complaints of citizens, 1,004 official letters were written, 1,779 notices for abatement of nuisances were served, 38 cases were referred to the District attorney for action, 32 cases were referred to the District chemist, and 4,152 letters were received.

There were 3,319 animals impounded, 10,528 dead animals, 22,039 tons of garbage, and 18,640 barrels of night soil removed.

The medical treatment of the poor amounted to 12,643 persons, of whom 4,338 were whites and 8,302 were colored.

There were 7,295 burial permits issued, of which 441 were disinterments, 289 were foreign, and 596 were burials at public expense.

Searches and transcripts for records of births, marriages, and deaths were furnished to 1,443 applicants, 100 permits to temporarily close the travel on streets on account of severe illness, and 107 special permits to garbage collectors were issued.

There were 2,476 inspections of plumbing made, 460 being in alleys having hydrants and water closets in the yards only, and 760 inspection of old houses.

## ABATEMENT OF NUISANCES.

The following tables (A and B) will give the number of nuisances referred to the sanitary inspectors and reported upon by them. In each case appropriate action was taken either by abatement direct, or through the machinery of the courts. These statements show the work of the year in this regard, as well as that for a period covering six years past, and also give an idea of the important duties performed by the inspectors.

It will be seen that the principal causes of grievance on the part of the people were foul and overrunning privies, bad drainage, defective plumbing in houses, overflowing the water into back yards, and collection of disease-breeding filth. There were nearly 7,000 unlawfully located and unsanitary privies reported and abated. There were 792 bad sewer connections examined, and nearly 2,000 back yards in unwholesome condition directed to be cleaned, besides a vast amount of miscellaneous complaints looked into, all affecting sanitary conditions, and the proper remedies applied. The tables (A and B) will show the year's work in detail, and what was done in the same direction during the last six years.



TABLE A.—Consolidated report of nuisances for the year ending June 30, 1892.

Nature of nuisance.	1891.						1892.						Total.
	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	
Alleys filthy.....	25	63	26	20	5	19	7	26	19	23	37	37	307
Alley garbage in.....						5					20	1	26
Alley needs repair.....	1	1							2	1	3	2	10
Areas.....		6		1	1	4		4	1	4	1	5	27
Ashes.....	41	49	28	60	41	42	19	53	87	103	96	138	757
Cellars.....	19	28	12	12	8	9	9	9	7	8	11	22	154
Drainage surface.....	76	128	68	109	33	19	27	5	29	59	103	166	816
Garbage.....	7	2	5	3		5	7	2	2	2	1	8	44
Gutters.....	8	9	2				1	1		1		2	19
Hogpens.....	8	5		15	6	6			1		1	6	48
Houses filthy.....			2	2		1	1		5	2	2	11	26
Houses unfit for habitation.....	1	1	2	1		8	3		1	1	14	19	51
Houses, slaughter.....		4									3	2	9
Houses, no privy.....	0	4			1	1	1	1	2	10	7	2	35
Hydrants.....	11	16	13	11	12	9	1	3	3	3	8	2	92
Lots, filthy.....	21	55	16	19	13	22	11	2	5	7	5	16	192
Lots, stagnant water.....	32	23	19	6	11	3	3	16	28	35	20	24	220
Manure.....	68	69	68	50	37	43	19	19	41	29	46	34	523
Miscellaneous.....	186	303	241	322	148	209	110	107	157	147	228	326	2,484
Pipes, water.....	14	24	30	26	10	17	24	10	10	16	12	16	209
Privies, filthy.....	359	444	263	230	198	306	121	231	227	259	316	298	3,252
Privies, dilapidated.....	2	8	6	3	1	5		7	4	5	11	10	62
Privies, full.....	351	427	243	210	171	294	117	227	215	266	339	316	3,176
Privies, leaky box.....	93	109	50	38	20	33	11	9	11	15	41	35	465
Pumps.....												1	1
Roof leaky.....	1	1	4	3				2	1		2	3	17
Sewers.....	69	92	64	64	66	53	43	50	62	61	66	102	792
Sewer connection.....	2	3	2	3		7	3	3	35	2	6	6	72
Stable.....	29	36	21	27	10	9	8	6	9	4	12	18	189
Stable, cow.....	8	2	6	3		1	1	2	3		4	2	32
Streets filthy.....	1	1		3	1							1	7
Streets need repair.....					2								2
Traps, sewer.....	5	11	11	7	4	2	3	3	6	6	6	11	75
Yards.....	134	195	166	189	99	183	34	80	153	210	238	250	1,937
Yards, cow.....	2	2	2	1			2	3		1	1	5	19
Vaults, privy.....	2	9			2	1			8	1			23
Water-closets.....	54	56	58	69	87	89	54	49	62	52	54	63	747
Total.....	1,631	2,186	1,428	1,507	987	1,405	640	930	1,196	1,327	1,714	1,960	16,911

TABLE B.—Consolidated report of nuisances for six years ending June 30, 1892.

Nature of nuisance.	1887.	1888.	1889.	1890.	1891.	1892.	Total.
Alleys .....	145	100	166	200	235	343	1,288
Areas .....	21	7	24	18	21	27	118
Ashes .....					757		757
Cellars .....	91	80	179	141	141	154	786
Drainage .....	319	412	563	460	518	816	3,088
Gutters .....	65	42	17	21	72	10	236
Garbage .....	324	238	221	74	72	44	973
Hogpens .....	15	3	17	44	57	48	184
Houses, filthy .....	12	8	12	9	15	10	182
Houses, unfit for habitation .....	31	4	21	11	11	51	129
Houses, no privy .....	38	17	34	32	21	35	177
Hydrants .....	104	67	101	123	156	92	643
Lots, filthy .....	57	51	116	167	147	192	730
Manure .....	457	579	629	676	500	523	3,463
Miscellaneous .....	1,330	1,031	2,792	2,627	2,296	2,484	13,160
Pumps .....				2	2	1	5
Pipes, water .....	123	127	84	75	144	209	762
Ponds, stagnant .....	99	46	00	70	116	220	641
Privies, filthy .....	5,047	5,907	6,227	5,444	4,904	3,252	30,781
Privies, full .....	5,407	5,830	6,148	5,316	4,739	3,176	30,616
Privies, leaky boxes .....	850	675	661	800	547	465	3,998
Privies, dilapidated .....	63	58	87	55	30	62	355
Roofs, leaky .....	9	3	9	38	12	17	88
Sewers .....	475	625	668	604	715	792	1,879
Sewers, house connection .....	40	51	172	119	105	72	585
Slaughterhouses .....	9			5	7	9	30
Stables .....	149	184	148	282	221	221	1,205
Streets, filthy .....	2	2	1	12	3	7	27
Traps, sewer .....	09	66	67	49	58	75	384
Yards .....	1,710	1,726	1,826	1,786	1,637	1,931	10,616
Yards, cow .....	13	14	116	14	5	19	181
Vaults, privy .....	15	12	7	6	5	23	68
Water-closets .....	428	428	610	522	693	747	3,428

## UNWHOLESOME FOOD CONDEMNATIONS.

The work of inspector of food for the year is shown in detail by Table C and for the past six years by Table D. There were, in round numbers, over 50,000 pounds of meat and poultry, 20,000 heads of cabbage, 32,000 cucumbers, 35,000 melons, 8,000 pounds of grapes, and 15,000 pounds of miscellaneous vegetables condemned as unfit for food. The details of the tables will be of interest to those who follow the markets and are careful in the matter of purchases, as showing how much of what is offered as food by unscrupulous dealers is put aside, and prevented from being condemned, by the careful housewife or cook at home after the money spent for them has been worse than wasted.

The statement also shows that the food inspectors have faithfully performed their duties during the year, and have firmly protected the public against the designs of the dishonest dealer.

## 658 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE C.—Unwholesome food condemned during the year ending June 30, 1892.

Articles.	1891.						1892.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Beef.....pounds.	1,656	1,424	2,585	1,431	915	1,388	510	788	1,057	2,551	1,398	3,082	18,785
Mutton.....do.	1,325	1,110	1,760	757	1,025	1,245	743	888	839	1,371	1,390	2,107	14,560
Veal.....do.	650	622	700	285	330	630	20	20	75	663	497	1,042	5,534
Pork.....do.	1,275	902	881	441	253	736	229	283	155	483	903	1,637	8,178
Bacon.....do.	15			115	20								200
Sausage.....do.	85	55	153	4	10	2	29	10	57	589	41	164	1,499
Venison.....do.							80						80
Chickens.....No.	12	48	63	65	64	111	41	55	31	90	36	20	636
Turkeys.....do.				1	27	84	20	10	5	1			148
Ducks.....do.		4	3		6	63	73	11		29			120
Geese.....do.			60	2		2	4	9	11	8			96
Birds.....do.			216	76	261	720	3	107	92	110			1,585
Rabbits.....do.				47	349	645	240	197	4				1,482
Squirrels.....do.						139	3	40					182
Apples.....bushels.	124	90½	28½	31	4	27½	48		5	37	½		396
Peaches.....do.	156½	240	127½	16								31	571½
Pears.....do.	2½	29½	44½	19½	½	½		3					99½
Plums.....do.	½	4	13				5						22½
Quinces.....do.													
Bananas.....dozen.	318	340	73	11		19	128	16	1	68	4	6	984
Oranges.....do.							60	240	35	25		3	363
Lemons.....do.			2	1½		3					2		8½
Grapes.....pounds.	130	1,620	3,265	1,570	828	19	45	30	278	75			7,860
Berries.....quarts.	1,590	10			540	90	295	260		550	648	1,759	5,742
Cherries.....do.	40						75						290
Cantaloupes.....No.	1,394	7,729	3,631									2,774	15,528
Watermelons.....do.	1,340	5,482	12,356									652	19,830
Pineapples.....do.		400								180	974	1,944	3,498
Asparagus.....bchs.											1,027	890	1,917
Beets.....do.	51											750	811
Carrots.....do.				110	5	16		10		38			169
Celery.....do.			402	251	87	507	109	224	17				1,597
Radishes.....do.	42									460	8,925	119	9,546
Rhubarb.....do.										76	82	15	173
Lettuce.....No.	37			4		80		170	643	1,205	353	448	2,940
Cabbage.....do.	1,494	1,820	2,628	841	533	741	727	926	837	984	812	1,451	14,794
Cymlings.....do.	1,124	480									8	2,894	4,507
Eggplants.....do.	905	602	437	5					12		92	300	2,353
Cauliflowers.....do.					581	505				80		4	1,170
Pumpkins.....do.				52	29	80	44	6		4			215
Corn.....dozen.	110	279	719	213								20	1,341
Cucumbers.....do.	437	50	195	10							72	1,829	2,596½
Kale.....bushels.					1	72	47	5	28	215	33		401
Spinach.....do.							4	3	6	29	1		43
Parsnips.....do.								½					½
Potatoes.....do.	11½	17½	26	14½	17½	53½	10½	3	6½	5½	½	568	732
Pease.....do.	7										25½	54	87
Beans.....do.	19½	19½	13								27	182½	261
Turnips.....do.	¾		½	24	8	46	21	30	18	½	16	19	202½
Tomatoes.....do.	48½	252½	353	53½	41½			6		19	36	50	860½
Onions.....do.													
Chestnuts.....do.								9					9
Eggs.....do.		432			45							70	547
Miscellaneous fruits and vegetables.....	75	66	90½	50	44	49	39	40	41	59½	52	64	669½



TABLE D.—Unwholesome food condemnations for six years ending June 30, 1892.

Articles.	1887.	1888.	1889.	1890.	1891.	1892.	Total.
Beef.....pounds..	21,803	20,534½	20,990	28,504	13,169½	18,785	123,786
Veal.....do.....	5,661	2,736	5,773	7,160	5,232	5,614	32,177
Mutton.....do.....	16,808	15,692	15,954	16,244	11,570	14,560	90,828
Bacon, ham, and pork.....do.....	4,503	2,533	2,218½	4,536	4,850½	9,877	28,517½
Birds, rabbits, and squirrels.....number..	1,766	2,989	2,950	6,998	3,030	3,249	20,982
Poultry.....pounds..	9,261	9,722	8,226	5,874	4,310	3,984	41,377
Eggs.....dozen.....	8	250	40	738½		547	1,583½
Cheese and butter.....pounds..	60	10					70
Potatoes and parsnips.....bushels..	914½	1,191½	463½	1,057½	381½	732½	4,741½
Beans, pease, and onions.....do.....	1,061	838½	1,328½	917½	336½	348	4,829½
Cabbage and lettuce.....heads.....	48,218	43,169	36,662	43,507	29,529	18,904	219,989
Squashes and pumpkins.....number..	3,512	5,584	4,449	6,912	5,479	4,722	30,658
Corn.....dozen.....	1,924	2,589½	1,506	2,394	1,633	1,341	11,387
Cucumbers.....do.....	6,497	5,876	4,665	6,848½	5,656	2,596½	32,139
Egg plants.....number.....	1,727	6,924	2,993	1,961	3,958	2,353	19,916
Tomatoes and turnips.....bushel..	829½	1,256½	1,191	1,012	1,110½	1,063½	6,469
Kale and spinach.....do.....	284	1,787½	412½	907½	294½	444	4,129½
Apples, peaches, pears, and plums.....do.....	815	917½	881	824½	286½	1,089½	4,814½
Watermelons.....number.....	13,902	16,543	5,721	11,446	9,608	19,830	77,050
Cantaloupes.....do.....	12,043	22,712	13,501	11,739	8,815	15,528	84,338
Berries.....quarts.....	6,091	3,793	9,852	4,937	6,618	5,742	37,033
Oranges and lemons.....dozen.....	5,011	3,310½	1,594	520	521	371½	11,328
Bananas.....do.....	596	5,500	440	354	1,652	984	9,526
Grapes.....pounds.....	4,480½	3,929	3,368	3,349	3,014	7,860	26,000½
Miscellaneous fruits and vegeta- bles.....bushel.....	2,074½	1,993½	3,166	2,479½	1,968½	691½	12,373½
Miscellaneous vegetables.....bunches..	10,292	11,446	11,454½	13,043	10,098	14,213	70,546½

## MARINE PRODUCTS.

The tables E and F following contain in detail the operations of the marine inspection. The great scope and responsible character of these inspections and the satisfactory manner in which they have been performed by the inspector of marine products are manifested by these statements. The tables give both inspections and condemnations, which include 365,000 bushels of oysters, 4,540,000 clams, and over 5,500,000 of herring, besides vast quantities of other fish inspected, while the condemnations consist of nearly 300,000 clams, 250,000 crabs and 2,000 bushels of oysters, besides various fishes and marine products.

## 660 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE E.—*Inspections and condemnations of marine products for the year ending June 30, 1892.*

	1891.					
	July.	Aug.	Sept.	Oct.	Nov.	Dec.
<b>INSPECTIONS.</b>						
Oysters.....bushels..	1,380	1,950	16,100	39,800	57,200	83,500
Clams.....number..	988,000	776,000	309,000	42,000		
Crabs.....do.....	184,400	88,000	66,600	4,700		
Shad.....do.....				1,029	1,468	262
Herring.....do.....						
Mackerel.....do.....	41,950	11,772	4,083	63		
Sheepshead.....do.....	8	30				
Porgies.....do.....						
Striped bass.....bunches..	2,050	4,093	4,629	9,471	4,537	2,013
Bluefish.....do.....						
Croakers.....do.....	1,952	2,260	1,888			
Eels.....do.....	279	271	361	854	572	335
Sturgeon.....number..	62	66	44			
Pike.....bunches..	22	97	87	709	1,449	1,674
Perch, yellow.....do.....	1,314	1,130	868	680	1,732	4,221
Perch, white.....do.....	2,229	1,942	3,088	4,266	2,938	1,661
Trout.....do.....	11,920	12,760	18,198	7,252	152	800
Catfish.....do.....	3,954	3,053	4,884	5,337	5,949	5,429
Mulletts.....do.....			52	97	302	987
Turtles.....number..	31	6	14			
Spots.....bunches..	80	434		80		
Drumfish.....number..		57	171	12		
Chubs.....bunches..					1,120	1,640
Carp.....number..	162	187	164	251	522	339
Tailors.....do.....	8,083	11,480	6,734	110		
Flounders.....bunches..			168	842	103	
Shad, winter.....do.....						
Bass, black.....number..	70					
Butterfish.....do.....	1,905	1,670	40			
Hickory Jacks.....do.....						
<b>CONDEMNATION.</b>						
Oysters.....bushels..	20		775	5		
Clams.....number..	33,500	49,800	16,050	1,500		
Crabs.....do.....	76,616	63,105	24,950	1,300		
Shad.....do.....						
Herring.....do.....						
Fish.....bunches..	1,798	1,692	1,657	329	365	1,129
Drumfish.....number..	2					
Mackerel.....do.....						
Hickory Jacks.....do.....						
Lobster.....do.....						
Carp.....do.....						
Sheepshead.....do.....						

TABLE E.—*Inspections and condemnations of marine products, etc.*—Continued.

		1892.						Total.
		Jan.	Feb.	Mar.	Apr.	May.	June.	
INSPECTIONS.								
Oysters.....	bushels..	47,600	54,800	44,800	17,600	600		365,330
Clams.....	number..				207,000	916,000	1,302,000	4,540,000
Crabs.....	do.....				3,200	53,800	143,200	543,900
Shad.....	do.....		402	7,741	204,657	44,298	4,182	264,039
Herring.....	do.....	103	13,620	236,120	3,657,200	1,582,400	13,450	5,502,893
Mackerel.....	do.....						4,212	62,080
Sheepshead.....	do.....						306	344
Porgies.....	do.....						005	965
Striped bass.....	bunches..			8,469	4,005	1,044	1,305	41,661
Bluefish.....	do.....					10,140	8,695	18,835
Croakers.....	do.....					22,180	19,390	47,670
Eels.....	do.....	27	34	169	1,127	965	560	5,660
Sturgeon.....	number..				7	00	135	404
Pike.....	bunches..	404	1,824	1,462	229	22	12	8,027
Perch, yellow.....	do.....	3,477	5,002	6,571		27	119	25,141
Perch, white.....	do.....	1,141	1,979	5,463	7,991	2,628	1,463	36,789
Trout.....	do.....					62,580	20,348	134,010
Catfish.....	do.....	3,114	8,448	6,974	11,571	8,192	5,085	67,990
Mulletts.....	do.....	424	713	1,007	562	365	265	4,774
Turtle.....	number..					15	63	129
Spots.....	bunches..					200	280	1,074
Drumfish.....	number..					3	50	293
Chubs.....	bunches..	720	1,540	1,760				6,780
Carp.....	number..	132	195	248	210	1,322	608	4,340
Tailors.....	do.....							26,407
Flounders.....	bunches..					718	73	1,904
Shad, winter.....	do.....							
Bass, black.....	number..				2	2		74
Butterfish.....	do.....							3,615
Hickory Jacks.....	do.....				599	6,723		7,322
CONDEMNATION.								
Oysters.....	bushels..	130	80		925			1,935
Clams.....	number..				1,300	29,150	141,600	272,900
Crabs.....	do.....				2,100	19,505	61,980	249,556
Shad.....	do.....				198	231		429
Herring.....	do.....				62,000	26,800		88,800
Fish.....	bunches..	133	124	175	3,900	1,902	1,825	15,029
Drumfish.....	number..						50	52
Mackerel.....	do.....				600			600
Hickory Jacks.....	do.....				228			228
Lobsters.....	do.....		40					40
Carp.....	do.....				3			3
Sheepshead.....	do.....						8	8

TABLE F.—*Inspections and condemnations of marine products for six years ending June 30, 1892.*

<b>INSPECTIONS.</b>									
Year.	Shad.	Herring.	Bluefish.	Fish.	Sturgeon.	Oysters.	Clams.	Crabs.	Turtle.
				<i>Bunches.</i>		<i>Bushels.</i>			
1887.....	265,314	7,886,371	31,487	271,961	817	295,550	2,397,000	737,200	.....
1888.....	308,444	7,446,727	103,660	295,987	1,005	362,690	2,199,000	570,200	.....
1889.....	448,577	7,511,025	49,382	223,667	631	358,214	3,595,000	708,100	.....
1890.....	419,391	8,264,548	35,177	260,124	1,385	418,000	4,991,000	782,100	.....
1891.....	317,689	4,835,860	17,490	318,655	408	331,175	4,700,700	604,700	.....
1892.....	264,039	5,502,893	18,835	417,493	404	365,330	4,540,000	543,900	129
Total.	2,023,454	41,447,424	256,031	1,787,887	4,650	2,130,959	22,422,700	3,946,200	129
<b>CONDEMNATIONS.</b>									
1887.....	203	84,950	336	9,378	8	479	88,217	163,590	.....
1888.....	124	70,730		11,119	57	1,343	61,900	118,619	.....
1889.....	93	34,700		13,559	1	1,688	67,360	145,964	.....
1890.....	70	33,300		13,111	7	716	83,600	210,600	.....
1891.....	860	131,300		15,981		2,545	107,430	152,210	.....
1892.....	429	88,800		15,758		1,935	272,900	249,556	.....
Total.	1,779	443,780	336	78,906	73	8,706	681,407	1,040,539	.....



## INDIGENT SICK.

This division of the work of the health department has been conducted during the year in a satisfactory manner. Probably in no other respect does this department more fully exhibit its philanthropic character than in its care for persons afflicted by disease, who are otherwise deprived of the means to employ medical advice or purchase suitable remedies.

The physicians to the poor have generally given prompt attention to the calls made upon them, and complaints of inattention have seldom reached this office.

There were nearly 17,000 visits made and over 12,000 patients treated, and medicines to the amount of \$2,503 have been furnished without cost to patients.

Table I shows the work of this branch for the year in detail by months, and Table K gives the same for the past ten years in aggregate.

TABLE I.—*The sick poor.*

Months.	Patients treated.	White.	Colored.	Visits made.	Office consultations.	Cost of medicine furnished.
1891.						
July.....	1,029	332	691	1,328	231	\$187.90
August.....	904	308	596	1,175	211	159.75
September.....	1,099	428	671	1,332	323	206.80
October.....	893	337	556	1,163	197	151.53
November.....	867	333	534	1,233	195	150.70
December.....	1,381	483	898	1,850	286	227.05
1892.						
January.....	1,497	449	1,048	2,190	323	340.05
February.....	1,283	391	892	1,727	377	291.50
March.....	1,063	339	724	1,412	181	233.75
April.....	1,047	355	692	1,349	256	219.55
May.....	667	239	428	901	139	131.65
June.....	913	344	569	1,086	279	157.85
Total.....	12,643	4,338	8,299	16,746	2,997	2,503.08

TABLE K.—*The sick poor for ten years ended June 30, 1892.*

Years.	Patients treated.	White.	Colored.	Visits made.	Office consultations.	Cost of medicine furnished.
1883.....	15,611	5,347	10,264	22,542	4,122	\$3,156.85
1884.....	16,121	5,022	11,099	22,633	5,088	2,900.10
1885.....	15,211	4,692	10,519	21,160	4,204	2,911.75
1886.....	16,901	5,430	11,471	21,824	5,659	3,862.75
1887.....	15,795	5,072	10,723	21,340	4,501	3,097.00
1888.....	15,352	4,745	10,607	21,722	3,934	3,607.00
1889.....	14,575	4,842	9,733	19,919	4,239	3,059.65
1890.....	16,576	5,619	10,957	22,547	4,410	3,352.25
1891.....	13,238	4,641	8,597	18,728	3,177	2,526.25
1892.....	12,843	4,338	8,299	16,746	2,907	2,503.08
Total.....	152,223	49,748	102,269	209,161	42,331	30,066.68

## THE COLLECTION OF GARBAGE AND OFFAL REMOVED.

During the fiscal year the contractor reported the removal of 10,528 dead animals, 22,039 tons of garbage, and 18,640 barrels of night soil. The monthly amount of work performed by him will be found in detail in the accompanying table (L) and in connection therewith a comparative statement of the same work for the period of ten years past. By these statements it will be noticed that there was an increase of 618 dead animals, a decrease of 2,644 tons in the amount of garbage, and also a decrease of 1,271 barrels of night soil removed.

TABLE L.—*Offal removed.*

Months.	Dead animals.	Garbage.	Night soil.	Months.	Dead animals.	Garbage.	Night soil.
1891.		<i>Tons.</i>	<i>Barrels.</i>	1892.		<i>Tons.</i>	<i>Barrels.</i>
July .....	1,184	4,000	1,800	January .....	274	961	700
August .....	1,815	5,000	1,700	February .....	462	870	1,060
September .....	1,311	2,200	2,000	March .....	442	810	1,110
October .....	639	2,170	1,600	April .....	928	910	1,540
November .....	465	1,665	1,100	May .....	954	1,080	1,980
December .....	529	1,023	1,200	June .....	1,525	1,350	1,850
				Total .....	10,528	22,039	18,640

TABLE M.—*Offal removed for the ten years ended June 30, 1892.*

Years.	Dead animals.	Garbage.	Night soil.	Years.	Dead animals.	Garbage.	Night soil.
		<i>Tons.</i>	<i>Barrels.</i>			<i>Tons.</i>	<i>Barrels.</i>
1883 .....	6,560	9,884	14,507	1889 .....	7,954	22,034	21,669
1884 .....	6,433	12,950	16,896	1890 .....	8,344	23,914	20,554
1885 .....	8,876	13,930	23,827	1891 .....	9,910	24,683	19,671
1886 .....	8,808	14,897	24,244	1892 .....	10,528	22,039	18,640
1887 .....	9,120	15,612	21,941				
1888 .....	7,863	20,136	19,743	Total .....	84,396	180,079	201,692

## THE POUND SERVICE.

The pound service has been conducted during the year with its customary efficiency and system. The largest number of animals in any one year within the last nine years, amounting to 3,319, were taken to the pound. Of these 340 were redeemed and 2,903 were killed, of which 2,896 were dogs. Fifty were sold, and the fees for redemption, amounting to \$778.75, were turned over to the collector of taxes for the District.

The following tables (G and H) will give the operations of the pound service in detail for the year and for the last ten years:

TABLE G.—Operations of the pound for the year ending June 30, 1892.

Months.	Impounded.									Disposition.				
	Horses.	Mules.	Cows.	Hogs.	Goats.	Geese.	Sheep.	Dogs.	Total.	Redeemed.	Killed.	Dogs killed.	Sold.	Amount realized from fees.
<b>1891.</b>														
July.....	9	3	27		2			112	153	37	113	112	2	\$77.25
August.....	4		31		2			633	672	57	607	607	8	128.00
September.....	16	1	7		2	7		442	475	30	423	421	11	75.75
October.....	5	1	20		1	18		175	220	53	162	162	4	92.00
November.....	2	1	4		2			214	223	13	198	197	8	44.00
December.....	2		3	2	2			238	247	24	218	218	4	82.25
<b>1892.</b>														
January.....	2							86	88	3	84	83		6.50
February.....	1				1			166	168	17	148	147	2	37.00
March.....	1		1		4			188	191	12	178	178		28.00
April.....	2		2		2	3		225	234	21	207	207	6	53.50
May.....	9	1	14		1			290	318	43	270	269	3	90.00
June.....	7	13			1		1	308	330	30	295	295	2	69.50
Total.....	62	20	109	2	20	28	1	3,077	3,319	340	2,908	2,806	50	778.75

TABLE H.—Animals impounded during the ten years ended June 30, 1892.

Years.	Horses.	Cows.	Calves.	Mules.	Hogs.	Geese.	Sheep.	Goats.	Dogs.	Total.
1883.....	15	204		2	2	90		66	3,007	3,376
1884.....	31	120		2	2	75		54	2,699	2,958
1885.....	15	52		4	2	48	3	64	3,190	3,378
1886.....	22	66		2	1	89	1	52	2,968	3,291
1887.....	21	87			2	16	2	50	2,880	3,058
1888.....	25	85		4	3	26		36	2,572	2,751
1889.....	27	54		3		14		17	2,581	2,706
1890.....	54	110		2		19		25	2,834	3,044
1891.....	60	131	1	5	2	78		26	2,523	2,824
1892.....	62	109		20	2	28	1	20	3,077	3,319
Total.....	332	1,028	1	44	16	473	7	384	28,330	30,615

## REGISTERED PRACTICING PHYSICIANS.

In the appendix will be found a list of practicing physicians who have been registered in this department, which has been carefully revised and addresses correctly given as far as attainable in view of the frequent removals without notice having been given. In registering physicians, as is required, the strict letter of the law has been followed in the rule that none but actually practicing physicians shall be entitled to registry, excluding those who have only the title of "doctor" without the actual practice.



## DIPHTHERIA AND SCARLET-FEVER SERVICE.

This service, inaugurated in January, 1891, was taken up by the present incumbent August 1 of the same year. Dr. Charles J. Osmun was placed in charge of this branch and has conducted it satisfactorily ever since. In order to make the report correspond with the fiscal year, the month of July, 1891, has been included in the statistical table numbered XLII and the details of his work for the year will be found in the following report:

## REPORT OF THE MEDICAL SANITARY-INSPECTOR ON THE DIPHTHERIA AND SCARLET-FEVER SERVICE.

Dr. C. M. HAMMETT:

In pursuance of your appointment I assumed the duties pertaining to the diphtheria and scarlet-fever service under the act of Congress of December 20, 1890, on the 1st day of August, 1891. I took up the work after it had been inaugurated for seven months, but the demands of the situation required that cases arising in the month of July, 1891, come under my care. Hence in making my report I have included that month so as to preserve the integrity of the statistics for the fiscal year intact. In that time there were 552 cases of diphtheria and 385 cases of scarlet fever reported. Personal inspection was made in every instance and the warning cards required by the law were properly placed and continued there the requisite time. Out of the 552 cases of diphtheria there were over 177 fatal terminations. These figures give a percentage of 32.6 deaths to the total number of cases. Of these 406 were white and only 146 colored. In the matter of scarlet fever there were 385 cases, of which 350 were white and 35 colored. Out of the total number there were 32 deaths, making a percentage of 9.9 loss. It will be a matter of scientific interest to note the great preponderance of the white element over the colored in regard to attack by these maladies, and in addition thereto it may be noted that neither of these diseases is confined to locality nor class, but the cases referred to occurred in all sections of the District, and in the most elegant streets and avenues as well as in the narrow alleys or slums. Each one attacks the young in preference to adults. The very few elderly persons who contracted either of them generally succumbed.

I have found the requirements of the law and regulations in relation thereto easy to be complied with and adequate to accomplish the end in view. One purpose is the complete isolation of the patient, even to the prevention of public funerals. The firm insistence of the health officer that diphtheria and scarlet-fever patients should be placed in as complete state of isolation as possible no doubt, in my opinion, saved this community from an epidemic of diphtheria in September and October, 1891, when the disease threatened to break over all bounds and invade the city. Therefore I have no recommendations to make.

C. J. OSMUN, M. D.,  
Medical Sanitary Inspector.

## ESTIMATES.

The estimates for the conduct of the Health Department for the fiscal year ending June 30, 1894, are as follows in detail:

Salary of Health Officer .....	\$3, 000
One chief clerk, to act as deputy health officer, \$2,000; one clerk, \$1,600; three clerks, at \$1,200 each, and one clerk, at \$1,000; total .....	8, 200
Ten sanitary inspectors, at \$1,200 each .....	12, 000
Three food inspectors, at \$1, 200 each .....	3, 600
Salary of poundmaster .....	1, 200
Salary of inspector of marine products .....	1, 200
Salary of chemist and inspector of dairy products .....	1, 200
Salary of messenger .....	720
One janitor .....	540
Salary of ambulance driver .....	500
Four laborers, pound service, at \$480 each .....	1, 920
Rent of office and stable .....	1, 120
Contingent expenses, including books, stationery, fuel, printing, miscellaneous items, etc .....	3, 500
Chemicals, \$150; additional apparatus, \$515; stationery, \$25; total .....	690

Diphtheria and scarlet-fever service, \$5,000, to be expended as follows:

One medical sanitary inspector .....	1,500
One driver and assistant .....	500
One horse and harness .....	300
Forage, stable rent, etc .....	300
Disinfectants, printing, stationery, payment of clothing (of poor persons) destroyed .....	2,400
Garbage service .....	21,400
Five inspectors in the garbage service, at \$1,000 per annum each .....	5,000

### THE INSPECTION OF PLUMBING.

The report of the inspector of plumbing is herewith transmitted. By reference to the statements regarding the abatement of nuisances by this department it will be seen that the inspection of plumbing forms an important adjunct to the carrying out of sanitary measures in the District.

### REPORT OF THE INSPECTOR OF PLUMBING.

OFFICE OF THE INSPECTOR OF PLUMBING,  
Washington, D. C., June 30, 1892.

SIR: I have the honor to submit herewith my tenth annual report of the operations of this office. It is with much satisfaction that I can now refer to the new legislation by Congress upon the inspection of old houses and the examination and registration of plumbers. For several years in my previous annual reports, I have called attention to the necessity of such legislation and urged it in season and out of season. Under its provisions the inspector of this office may, at any time during reasonable hours, on the application of the owner or occupant, or the complaint under oath of any reputable citizen, inspect or cause to be inspected any house in the District of Columbia, and see that the regulations governing plumbing and house drainage are duly observed and enforced. This enactment greatly strengthens the work of this office and closes one of the principal avenues of contagion and epidemics. The law now says simply that a man has no right to domicile himself in a densely populated city and claim his house his castle, unassailable and unapproachable, as he pollutes the atmosphere and endangers the health of the neighbors while enjoying the advantages and security of the corporation. This law says the Commissioners may enforce regulations governing the examination, registration, and licensing of plumbers, and it is expected, under this clause of the law, that persons engaging in the business of plumbing will give evidence of business qualifications and moral character which will give them the confidence and support of the community and elevate the trade to the responsible position it should enjoy.

Again I must express my satisfaction with the assistant inspectors, who have by their zeal and efficiency greatly facilitated the work of the office and enabled me to report examinations and approval of plans to the number of 2,476, each of which received several inspections during the course of their erection, amounting in the aggregate to 5,373 inspections of new houses. Of these, 460 were houses erected in alleys, having plumbing fixtures in yards only. The inspections of old houses amounted to 760. These old-house inspections represent much time and anxiety on the part of the inspectors, as many tests are made and local conditions carefully considered.

At the request of the Health Officer of the District I made a careful inspection and report of the sanitary condition of the Senate wing of the Capitol, and although the language of my report was plain and void of extravagance, it was not received with favor in some quarters, yet it led to a very thorough overhauling of that portion of the building and a thorough reformation of all the matters noticed by me in my report. It is pretty safe to predict that the air of the Senate wing will be more wholesome than it has been.

From a thorough acquaintance with the sanitary conditions of most of the public buildings, I think the example made at the Senate wing should be widely extended. The high grade of plumbing fixtures now used in houses of moderate cost and the general demand for nonabsorbent surfaces throughout the bathrooms and basements has won the confidence of investors in the character of the modern Washington residences. Early and wise legislation by Congress is now greatly aiding in the building up of the city.



In my last annual report I censured in pretty plain terms some unsanitary features of the District building and the inconvenient quarters assigned to the inspector of plumbing, the want of suitable files, etc., and now regret that there has been no change, or at least no improvement.

Very respectfully,

SAMUEL A. ROBINSON,  
*Inspector of Plumbing.*

C. M. HAMMETT, M. D.,  
*Health Officer, District of Columbia.*

#### VITAL STATISTICS.

Throughout the last fiscal year the health of the District of Columbia has not been disturbed by any marked invasion of disease. There was an increase in the total mortality of 378 over that of the preceding year, but the death rate was raised only six-tenths of one individual in each thousand of inhabitants. This increase may be mainly attributable to the rapid increase of population and partly to the prevalence of acute lung diseases during the late winter and early spring months. At one period in the fall season diphtheria threatened to become epidemic. Its advance was met with all possible energy and its spread finally checked by strict application of the principle of individual isolation, rendered practical under the wise provisions of the laws regulating this disease as well as scarlet fever.

During the year ending June 30, 1892, there occurred 6,098 deaths. Of this number 1,847 were white males, 1,595 were white females, 1,369 were colored males, and 1,287 were colored females. The annual death rate was 19.66 for the whites, and 31.24 for the colored people, and 23.4 for the total population.

#### I.—ZYMOTIC DISEASES.

There were 2,199 deaths from these diseases, of whom 735 were white and 564 colored. The death rates were 4.20 and 6.63, respectively. The chief causes of mortality were typhoid fever, 183; diphtheria, 182, and diarrheal diseases, 476.

Under the four orders into which this class is divided, 1,157 were miasmatic cases, 30 enthetic (which embraces syphilis), 109 were dietetic, and 3 parasitic.

As compared with last year's report, there was an increase in the total number in that class of 93, and an increase in the rate from 4.80 to 5 in the total population.

#### II.—CONSTITUTIONAL DISEASES.

This class of diseases caused 1,233 deaths, as compared with 1,218 of last year. The percentages of mortality to the total mortality was 20.22, while the death rate was 3.45 for the whites and 7.38 for the colored. There was a decrease of 35 in the fatal cases of consumption as compared with last year, and of 20 in the number of deaths from cancers. The average number of deaths from consumption for the last twelve years was 730, while the total for this year is 714, or 16 below the average.

#### III.—LOCAL DISEASES.

In this class 2,786 deaths occurred, of whom 1,653 were white and 1,133 were colored, with a death rate of 9.44 and 13.32, respectively.

Diseases of the nervous system caused 737 deaths; circulatory, 359; respiratory, 956; digestive organs, 444; urinary organs, 229; genera-



tive, 33; osseous, locomotory, and integumentary, 28. There is no noticeable feature of increase or decrease under any of these heads as against the results of last year. The rate of death from acute lung diseases maintained the same high figure as that of the previous year, attributable to the prevalence of pneumonia and congestion of the lungs among adults, and of bronchitis among children.

#### IV.—DEVELOPMENTAL DISEASES.

There were 540 deaths from developmental maladies, of whom 295 were children under 1 year old, 177 were from old age, and 72 were women. Of the latter number nearly the whole were from puerperal ailments of various character, 32 of which were from puerperal fever and septicæmia. Of the children, 11 deaths occurred from umbilical hemorrhage.

#### V.—VIOLENCE.

Two hundred and twenty-two persons died from violence, of whom 134 were white and 88 colored. There was a decline from 36 to 25 in the number of suicides as compared with last year, and, as usual, the whites predominate greatly, being 23 to 2 colored. There were 32 deaths from falls, 32 drowned, 8 from inhaling illuminating gas, and 16 from railway accidents.

#### BIRTHS.

During the year 4,614 births were returned, of which 2,648 were white and 1,966 were colored. The illegitimates numbered 586, of whom 67 were white and 519 colored. There were reported by physicians 2,221 and by midwives 2,393, and of the latter 1,049 were white. Ninety-two twins and 6 triplets were born during the year, the latter all colored. Out of the total number born, the males exceeded the females by 150. There was a gain of 270 births reported over those of last year.

#### STILLBIRTHS.

The stillbirths reported amounted to 467, as against 440 last year. The illegitimates numbered 118 to 349 legitimates, equaling a fraction over 25 per cent of the whole number. Of these 13 were white and 105 colored. Two hundred and twenty-six went to the full period of utero-gestation and 4 were reported as having reached the tenth month. Physicians attended in 340 cases, midwives in 41 cases, and the coroner in 86 cases, many of which were infants abandoned in the streets or thrown into alleys or sewers. Heavy work by the mother among the colored, and her ill health in both races give the principal causes of stillbirth or miscarriage.

#### MARRIAGES.

Fourteen hundred and fifty-eight marriages were returned as against 1,289 last year, giving a gain of 159. Of these 1,111 were among white and 337 among colored persons. No case of miscegenation was reported. Sixty-one of the whole number of marriages were those of foreign-born citizens. By far the largest number were between brides and grooms under thirty years of age, and all except 185 were first marriages.

Tables, charts, and maps of the District annexed hereto will give a full review in detail of the statistics of deaths, births, and marriages. These will give numbers, ages, percentages, as brought out by the totals under the different heads, so as to enable comparison and deductions to be made to a great degree of completeness.

The records of all these are in excellent shape for reference. Being the only source in the District from whence evidence and information can be derived, these records have now become of inestimable value to the public. Transcripts from these records are received as conclusive proof in all the departments of the General Government, in the courts, in matters of insurance, in the settlement of estates, and in the adjustment of pensions.

#### GENERAL RECOMMENDATIONS.

Attention has been called to the value of the records of this office. Further attention is herewith called to the condition in which they are placed as regards safety and duration. These records are composed of bound volumes in manuscript and the original certificates of death, birth, and marriage in the District of Columbia for the last eighteen years and over. They are the only record evidence of these events in existence. As now placed in the building occupied by the health department they are dangerously exposed to destruction by fire, water, insects, and vermin. Should they be totally or even partially destroyed they can never under any circumstances be replaced, and thus the public would be deprived of the use of evidence of untold interest in the settlement of estates, insurance, and claims.

In view of the threatened visitation of epidemics of various kinds during the coming spring and summer, it is recommended that early and energetic measures to meet the invasion of such an enemy be inaugurated both by the government and the people of the District. There should be an absolute cleansing of every house, lot, alley, and street in the city. An efficient and ample quarantine should be established to fence off contagion in every form and place where it may present itself. A convenient and comfortable place should be provided for those attacked suddenly or for those who have no designated domicile, and means provided by which all such cases can be quickly and easily transported thereto. Ways and means should also be provided by which a full corps of skilled inspectors, in addition to the regular force of the health office, and skilled nurses in case of emergency, could be employed.

There is no more important matter affecting the public than the garbage collection. The general health in a great measure depends upon the degree of cleanliness practiced by families, and no greater threat to the physical welfare can be maintained than a collection of filth and offal on residence premises. While the contractor may endeavor to his utmost exertion to fulfill his contract and to visit punctually every family embraced within the service, yet unless he meets with corresponding attention from the inmates of houses he will be hampered in his work to the extent of such neglect. Therefore it would be well to ask every citizen and every family in the city to help the collection of garbage by establishing an understanding as to hours and days for visits by the vehicles and to answer all calls by drivers when made. That this service is now in a satisfactory condition is shown by the fact that scarcely any complaints of neglect on the part of the collectors to present themselves are now made to this office.

It is probable that in the near future a railroad will run through the grounds now occupied as a location for the public pound. New quarters for this service should be secured at once. A revenue of \$15,000 per annum is derived from the license on dogs, and the pound service is the only means by which the collection of this tax can be enforced. To secure greater efficiency the force should be increased by the addition of one night watchman and the purchase of better horses and wagons. In former years the stray animals captured and impounded were taken from vacant lots that are now built up with residences. The collections are now made chiefly from the suburbs and from points quite distant from the central portions of the city. A large area is patrolled by the pound men. If the present location is retained, costly improvements must be made by the introduction of sewer and water service.

Attention is called to the recommendations in my report of last year, as well as by my predecessor in previous reports, as to the disposition of ashes. In themselves ashes are not considered dangerous to health, but when deposited in heaps in cellars or outhouses they are apt to become receptacles for the refuse of the household. Hence in time, by the natural reactions, these collections become surcharged with disease germs especially dangerous to health. There is, therefore, now particularly urged upon the attention of the Commissioners, and through them upon Congress, the necessity for legislative enactments which will provide for the official collection of ashes, as in the case of garbage, and under similar regulations.

Respectfully submitted.

C. M. HAMMETT, M. D.,  
*Health Officer.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.



---

APPENDICES  
TO THE  
REPORT  
OF THE  
HEALTH OFFICER  
OF THE  
DISTRICT OF COLUMBIA.

---

TABLE I.—Showing total number of deaths occurring in the District of Columbia, arranged by classes, orders, sex, color, months, quarters, age, nativity, and social relations, with percentages and death rates, for the year ending June 30, 1892.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE.		RECAPITULATION.										1891.					
			Deaths per 1,000 inhabitants.		Total by color and sex.				Total by color.		Total by sex.		July.		August.					
			W.	C.	W.	M.	F.	C.	W.	C.	M.	F.	W.	C.	M.	F.				
					W.		C.													
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
CLASS I.—ZYMOTIC DISEASES.																				
Order 1.—Miasmatic.																				
Measles.....	5	.082	.023	.012	2	2	1	1	4	1	3	2	1	2	1	1	1	1		
Scarlet fever.....	26	.426	.131	.035	14	9	3	23	3	14	12	1	8	1	3	5	1	1		
Typhoid fever.....	183	3.001	.612	.895	70	37	39	107	76	109	74	3	6	1	1	1	1	1		
Typho-malarial fever.....	23	.377	.080	.106	6	8	5	14	9	11	12	1	1	1	1	1	1	1		
Intermittent fever.....	7	.115	.023	.035	3	1	2	4	3	3	4	1	1	1	1	1	1	1		
Remittent fever.....	15	.246	.046	.082	6	2	5	8	7	11	17	1	1	1	2	2	2	1		
Malarial fever.....	28	.459	.067	.188	2	10	9	12	6	7	5	6	5	2	3	6	7	1		
Congestive fever.....	12	.197	.034	.070	4	2	3	6	5	9	9	1	1	1	2	2	2	1		
Diphtheria.....	182	2.985	.732	.635	62	66	29	128	54	91	91	21	4	2	3	6	7	1		
Croup.....	39	.641	.148	.153	11	15	7	26	13	18	21	2	1	2	8	1	2	4		
Whooping cough (pertussis).....	76	1.247	.160	.564	9	19	22	28	48	31	45	2	1	2	1	2	4	4		
Eczema.....	1	.016	.005	.000	1	1	6	1	8	1	7	1	1	1	1	1	1	1		
Erysipelas.....	19	.310	.064	.094	6	7	2	14	5	9	10	1	1	1	1	1	1	1		
Pyæmia and septicæmia.....	19	.310	.080	.059	7	7	2	14	5	9	10	1	1	1	1	1	1	1		
Carbuncle.....	1	.016	.006	.000	1	1	10	1	20	24	21	1	1	1	2	1	1	1		
Influenza.....	45	.739	.143	.235	14	11	10	25	20	24	21	1	1	1	2	1	1	1		
Cholera morbus.....	7	.113	.029	.024	2	3	2	5	2	4	3	1	1	1	1	1	1	1		
infantum.....	223	2.657	.571	1.448	55	45	67	100	123	114	99	21	9	28	17	9	8	11		
Dysentery.....	41	.673	.131	.212	8	15	9	23	18	17	24	1	1	7	4	4	4	3		
Diarrhea.....	93	1.526	.257	.565	23	22	28	45	48	51	42	3	8	4	5	2	7	3		
Enterocolitis.....	112	1.837	.440	.412	51	26	20	77	35	71	41	9	5	7	4	11	9	2		
Total miasmatic diseases.....	1,157	18.973	3.785	5.824	356	306	266	662	495	622	535	49	42	48	43	42	46	26		
Order 2.—Enthetic.																				
Syphilis, congenital.....	24	.394	.091	.094	8	8	1	16	8	9	15	1	1	1	1	1	1	1		
tertiary.....	3	.049	.011	.012	2	2	1	2	1	3	2	1	2	1	1	1	1	1		
variety not stated.....	3	.049	.018	.018	1	2	1	3	1	1	2	1	2	1	1	1	1	1		
Total enthetic diseases.....	30	.492	.120	.106	11	10	2	21	9	13	17	2	2	1	1	1	1	1		





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

1891.																			1892.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Cause of death.	September.						October.						November.						December.						Total second quarter.						January.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	W.			C.			W.			C.			W.			C.			W.			C.			W.			C.			W.			C.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
CLASS I.—ZYMOTIC DISEASES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Order 1.— <i>Miasmatic.</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Measles.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							















TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.											
	5 to 10 years.			10 to 20 years.			20 to 30 years.			30 to 40 years.		
	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
Measles.....	3	2	1	2	2	1	1	2	1	1	2	1
Scarlet fever.....	3	2	3	13	9	16	38	9	11	6	5	3
Typhoid fever.....	1	1	2	1	2	2	2	2	1	1	1	1
Typho-malarial fever.....	2	1	2	1	1	1	1	2	1	1	2	1
Intermittent fever.....												
Remittent fever.....												
Malarial fever.....	1	2	2	2	2	3	1	2	1	1	2	1
Congestive fever.....	31	29	10	5	6	6						
Diphtheria.....	5	4				1						
Croup.....												
Whooping cough (pertussis).....												
Eczema.....												
Erysipelas.....	1						1	5		2	1	
Pyæmia and septicæmia.....							1			1	1	
Carbuncle.....												
Influenza.....			1	2			1	1	2			
Cholera morbus.....	1									1		
infantum.....												
Dysentery.....	2		2				3			1	4	1
Diarrhea.....										3	1	1
Enterocolitis.....			2							1	1	4
Total miasmatic diseases.....	47	41	21	17	18	29	46	25	16	14	11	11
Order 2.— <i>Enthetic.</i>												
Syphilis, congenital.....												
tertiary.....												
variety not stated.....							1					
Total enthetic diseases.....							1					



TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.												SOCIAL RELATIONS.												
	70 to 80 years.				80 to 90 years.				Above 90 years.				Unknown age.				Married.				Single.				
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		W.		C.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS I.—ZYMOTIC DISEASES.																									
Order 1.— <i>Miasmatic.</i>																									
Measles.....																									
Scarlet fever.....																									
Typhoid fever.....	1																								
Typho-malarial fever.....																									
Intermittent fever.....																									
Remittent fever.....																									
Malarial fever.....	1	1																							
Congestive fever.....		1																							
Diphtheria.....																									
Croup.....																									
Whooping cough (pertussis).....																									
Eczema.....																									
Erysipelas.....	2	1						1																	
Pyæmia and septicæmia.....																									
Carbuncle.....																									
Influenza.....	3	2						1	5	3	1														
Cholera morbus.....	1																								
infantum.....																									
Dysentery.....		3	2																						
Diarrhea.....	4	1								2	1														
Enterocolitis.....	2	1																							
Total miasmatic diseases.....	12	11	4	5	6	5	3										65	38	35	20	281	244	222	195	
Order 2.— <i>Enthetic.</i>																									
Syphilis, congenital.....																									
tertiary.....	1																								
variety not stated.....																									
Total enthetic diseases.....	1																				10	10	2	7	



Order 3.—*Dietic.*

Inanition.....	1	4	1	17	13	22
Alcoholism.....	4	4	1	3	1	8
Purpura.....	4	4	1	3	1	8
Mal-assimilation of food.....	4	4	1	3	1	8
Total dietic diseases.....	4	5	1	22	23	30

Order 4.—*Parasitic.*

Thrush.....	1	1	1	1	1	2
Total parasitic diseases.....	1	1	1	1	1	2
Total zymotic diseases.....	13	11	4	5	6	3

## CLASS II.—CONSTITUTIONAL DISEASES.

Order 1.—*Diathetic.*

Rheumatism.....	2	1	1	1	1	6
Leucocythæmia.....	2	1	1	1	1	6
Goiter.....	1	1	1	1	1	5
Dropsy (ascites).....	1	1	1	1	1	5
Anæmia.....	5	1	1	1	1	9
Cancer of stomach.....	1	1	1	1	1	5
uterus.....	1	1	1	1	1	5
liver.....	2	1	1	1	1	6
breast (mammaræ).....	1	1	1	1	1	5
lungs.....	1	1	1	1	1	5
abdomen.....	1	1	1	1	1	5
axillæ.....	1	1	1	1	1	5
rectum.....	1	1	1	1	1	5
neck.....	1	1	1	1	1	5
mouth.....	1	1	1	1	1	5
pylorus.....	1	1	1	1	1	5
tongue.....	1	1	1	1	1	5
pancreas.....	1	1	1	1	1	5
menentery.....	1	1	1	1	1	5
face.....	1	1	1	1	1	5
bladder.....	1	1	1	1	1	5
kidney.....	1	1	1	1	1	5
omentum.....	1	1	1	1	1	5
intestines.....	1	1	1	1	1	5
Total diathetic.....	11	8	3	3	1	2

Order 2.—*Tubercular.*

Potts' disease.....	1	1	1	1	1	5
Marasmus.....	1	1	1	1	1	5
Scrofula.....	1	1	1	1	1	5
Tuberculosis.....	1	1	1	1	1	5

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.											
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.				Foreign.			
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—ZYMOTIC DISEASES.																				
Order 1.—Miasmatic.																				
Measles.....									1	6	1	3	1	5						
Scarlet fever.....									7	16	16	11	2	42						
Typhoid fever.....	2		2						16	3	3	1	15	2	26					
Typho-malarial fever.....		1		1					2	3	3	2	4	2	3					
Intermittent fever.....									1			2	1	2	1					
Remittent fever.....									3			2		1						
Malarial fever.....	2								1	6	7	3	2	2	4					
Congestive fever.....	1			2					2			3		2	3					
Diphtheria.....									52	61	27	22	4	9	3					
Croup.....									9	15	7	6		2						
Whooping cough (pertussis).....									9	17	22	26								
Eczema.....									1											
Erysipelas.....	2		1						4	2	1	1	2	1	5					
Pyæmia and septicæmia.....	1		1							3	1	1	2	4	1					
Carbuncle.....																				
Influenza.....																				
Cholera morbus.....	5		1	2					3	4	5	3	5	8	7					
Cholera infantum.....	1									1			1							
Dysentery.....	2	4	1	5					55	45	68	53			1					
Diarrhea.....	4	6	2	3					2	4	3	9	6	4	6					
Enterocolitis.....	1		1						11	14	18	16	4	5	10					
Total miasmatic diseases.....	10	24	9	14					226	225	200	168	52	91	66	61	30	29		
Order 2.—Ethetic.																				
Syphilis, congenital.....									8	8	1	7								
tertiary.....	1								1		1						1			
variety not stated.....									1	2										
Total ethetic diseases.....	1								10	10	2	7					1			







Paraplegia.....	11	.180	.024	.071	3	2	2	4	5	6	2	1	1	1	1	4	4	2	3
Paralysis.....	94	1.544	.337	.412	28	31	18	17	59	48	1	1	1	1	1	4	4	2	3
Progressive locomotor ataxia.....	3	.049	.017		3				3	2									
Cerebral embolism.....	5	.082	.023	.012	2	2	1		4	2							1		
Myelitis.....	6	.098	.023	.024	2	2	1	1	4	3									
Prostration from heat.....	4	.065	.017	.012	3			1	3	1						1			
Nervous exhaustion.....	11	.180	.063		4	7			11	7									
Spinal sclerosis.....	8	.138	.034	.024	4	2	1	1	6	3									
Total diseases of the nervous system.....	737	12.086	2.623	3.272	273	186	142	129	459	315	19	12	6	14	21	15	14	9	
Order 2.—Circulatory organs.																			
Hydropericardium.....	15	.246	.011	.152	1	1	6	7	2	13									1
Pericarditis.....	12	.196	.062	.012	9	2		1	11	3									
Endocarditis.....	6	.098	.029	.012	2	3			3	1									
Valvular disease of the heart.....	156	2.557	.497	.810	41	46	35	34	87	80	5	4	4	4	1	8	1	3	
Fatty degeneration of the heart.....	12	.196	.057	.024	3	7		2	10	9	1								
Dilatation of heart.....	14	.239	.051	.059	6	3		2	9	5									
Hypertrophy of heart.....	17	.279	.074	.047	9	4	3	1	13	4									
Heart disease (undefined).....	79	1.297	.269	.376	22	25	15	17	47	5	2								
Cardiac thrombosis.....	10	.164	.046	.024	6	2	1	1	8	3	1	1	1	1	2	2	1	1	
Carditis.....	4	.066	.017	.012	2	1	1		3	1									
Aneurism of aorta.....	10	.164	.040	.035	5	2	3		7	2									
arch of aorta.....	3	.050	.011	.012	2		1		2	3									
Ossification of coronary arch.....	1	.016	.006		1				1	1									
Angina pectoris.....	16	.263	.074	.035	10	3	1	2	13	1									
Arterial sclerosis.....	2	.033	.006	.012	1		1		1	2									
Phlebitis.....	1	.016	.006		1				1	1									
Malformation of heart.....	1	.016	.006						1	1									
Total diseases of circulatory organs.....	359	5.887	1.262	1.622	121	100	71	67	221	167	11	5	8	7	7	12	3	5	
Order 3.—Respiratory organs.																			
Pneumonia.....	527	8.642	1.463	3.191	140	116	143	128	256	244	1	2	6			2	5	2	
Bronchitis.....	219	3.589	.572	1.399	53	47	63	56	100	103		1	4	2	2	2	1	3	
Congestion of lungs.....	131	2.148	.452	.612	43	36	27	25	79	61	3		1	1					
Pleurisy.....	10	.164	.046	.024	3	5	1	1	8	6									
Laryngitis.....	16	.263	.068	.047	7	5	2	2	12	7						1	1		
Asthma.....	15	.246	.023	.129	4		4	7	4	8				3					
Hemorrhage of lungs.....	15	.246	.034	.105	4	2	5	4	6	6			1	1					
Gangrene of lungs.....	1	.016	.006		1				1	1									
Edema of lungs.....	13	.214	.057	.035	4	6		3	10	9					1				
Abscess of lungs.....	3	.050	.011	.012		2	1		2	4									
Laryngismus stridulus.....	2	.033	.011		1	1			2	1							1		
Tonsillitis.....	4	.066	.023		1	3			4	3									
Total diseases of the respiratory organs.....	956	15.677	2.766	5.554	261	223	246	226	484	449	4	3	12	7	7	7	6	5	

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

[illegible]



Paraplegia.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Paralysis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Progressive locomotor ataxia.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Cerebral embolism.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Myelitis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Prostration from heat.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Nervous exhaustion.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Spinal sclerosis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Total diseases of the nervous system.....	12	17	17	10	52	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Order 2.—Circulatory organs.																												
Hydropericardium.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Pericarditis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Endocarditis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Valvular disease of the heart.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Fatty degeneration of the heart.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Dilatation of heart.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Hypertrophy of heart.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Heart disease (undefined).....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Cardiac thrombosis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Carditis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Aneurism of aorta.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
arch of aorta.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Ossification of coronary arch.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Angina pectoris.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Arterial sclerosis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Phlebitis.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Malformation of heart.....	1	3	2	1	7	44	37	33	24	5	3	2	1	1	10	32	25	16	9	69	51	39	32	30	16	12	12	1
Total diseases of circulatory organs.....	11	4	5	4	29	21	16	16	7	11	4	4	6	5	2	8	10	7	5	9	23	11	21	15	17	8	7	7
Order 3.—Respiratory organs.																												
Pneumonia.....	5	5	3	8	7	9	14	10	5	2	11	6	7	10	6	4	16	16	13	21	28	30	31	44	31	38	26	26
Bronchitis.....	1	1	1	2	2	2	6	7	2	1	4	1	2	4	4	5	5	4	5	9	9	13	15	16	9	13	9	9
Congestion of lungs.....	1	1	1	1	2	2	2	1	3	2	1	2	5	2	2	3	5	5	3	1	13	6	6	11	7	6	5	5
Pleurisy.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Laryngitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Asthma.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hemorrhage of lungs.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gangrene of lungs.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Edema of lungs.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Abscess of lungs.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Laryngismus stridulus.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tonsillitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total diseases of the respiratory organs.....	6	6	6	10	17	16	24	22	10	8	19	10	16	10	10	13	15	17	21	33	53	55	58	78	48	58	41	41

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

1892.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Cause of death.		February.						March.						Total third quarter.						April.						May.						June.						Total fourth quarter.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		W.			C.			W.			C.			W.			C.			W.			C.			W.			C.			W.			C.			W.			C.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					M.	F.	M.				F.	M.	F.				M.	F.	M.				F.	M.	F.				M.	F.	M.				F.	M.	F.				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</

[illegible]





[illegible]







TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.												SOCIAL RELATIONS.					
	70 to 80 years.						80 to 90 years.						Above 90 years.					
	W.			C.			W.			C.			W.			C.		
	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.	M.		F.
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
<b>CLASS II.—CONSTITUTIONAL DISEASES.</b>																		
Order 2.— <i>Tubercular</i> —Continued.																		
Rickets.....																2	1	
Hip-joint disease.....																2	6	1
Hydrocephalus.....																		
Scrofulous synovitis.....																4	5	10
Psoas abscess.....																		1
Tubercular meningitis.....																		3
enteritis.....																1		
peritonitis.....																1		1
Consumption (phthisis pulmonalis).....	6	5	6	1	2	4	2	1					66	71	61	101	65	94
Tabes mesenterica.....																1		3
Total tubercular diseases.....	6	6	6	1	2	4	2	1	1				75	81	68	163	119	173
Total constitutional diseases.....	17	14	9	4	3	6	2	3	1				99	110	91	175	135	182
<b>CLASS III.—LOCAL DISEASES.</b>																		
Order 1.— <i>Nervous system.</i>																		
Meningitis, cerebral.....	1												5	1				8
cerebro-spinal.....																22	22	9
spinal.....																4	6	4
Inflammation of brain.....																4		
Softening of brain.....	2	1	3			2							4	3	5	3	1	5
Congestion of brain.....	1												7	2	6	12	2	1
Abscess of brain.....													1	1	1	2	8	2
Edema of brain.....																2		
Apoplexy.....	16	8	1	4	6	6	3	3	1				44	9	14	14	8	2
Insanity.....	2	3		2									10	2	4	16	4	3
Epilepsy.....	1			1									2		4	11	1	1
Convulsions.....																		
Trismus nascentium.....																25	24	46
Tetanus.....																9	4	20
Hemiplegia.....	1	1		1		1							4	4		1		7

Paraplegia.....	1	9	4	2	1	1	1	1	1	1	2	1	2	1	6	4	2	3	3
Paralysis.....	8																		
Progressive locomotor ataxia.....	1																1	1	
Cerebral embolism.....	1																1	1	
Myelitis.....																			1
Prostration from heat.....																	2		
Nervous exhaustion.....	1																1	1	
Spinal sclerosis.....																			
Total diseases of the nervous system.....	36	22	9	10	10	19	3	5	3	1	2				34	138	87	95	68
Order 2.—Circulatory organs.																			
Hydropericardium.....																			5
Pericarditis.....	2																2	1	
Endocarditis.....	1																1	1	
Valvular disease of the heart.....	6	16	3	7			1	1								14	8	9	5
Fatty degeneration of the heart.....	1	1																	
Dilatation of heart.....	1																1	1	
Hypertrophy of heart.....	2	2															1	1	
Heart disease (undefined).....	6	6	1					2								8	1		2
Cardiac thrombosis.....	1	2															1		
Carditis.....	2																		
Aneurism of aorta.....																			
arch of aorta.....	2																1		
Ossification of coronary arch.....																			
Angina pectoris.....	4		1			1											2		
Arterial sclerosis.....																			
Phlebitis.....																	1		
Malformation of heart.....																			
Total diseases of circulatory organs.....	28	27	5	7	3	3	3	3							27	35	19	13	12
Order 3.—Respiratory organs.																			
Pneumonia.....	14	14	4	3	7	6	3	2							11	55	45	92	99
Bronchitis.....	5	11		1	3	6	1	2							4	40	15	57	43
Congestion of lungs.....	6	4	3	1	1	3		1							4	22	19	15	15
Pleurisy.....		1														1	3	1	
Laryngitis.....																6	5	2	2
Asthma.....																2			
Hemorrhage of lungs.....	2						1	1							3			1	1
Gangrene of lungs.....																			
Oedema of lungs.....	2	1				1											3		1
Abscess of lungs.....																	1		
Laryngismus stridulus.....																	1		
Tonsillitis.....																	3		
Total diseases of the respiratory organs.....	29	31	7	5	11	16	5	6	6	3	4				24	128	95	168	161



TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	SOCIAL RELATIONS.						NATIVITY.															
	Widow or wid- ower.			Unknown.			District of Columbia.				Other parts of United States.				Foreign.				Unknown.			
	W.		C.	W.		C.	W.		F.	M.	C.	W.		F.	M.	C.	W.		F.	M.	C.	
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		
CLASS II.—CONSTITUTIONAL DISEASES.																						
Order 2.—Tubercular—Continued.																						
Rickets.....							1			1												
Hip-joint disease.....																						
Hydrocephalus.....							2	6		1												
Scrofulous synovitis.....																						
Psoas abscess.....	1						3	5		10	3	1										
Tubercular meningitis.....																						
enteritis.....																						
peritonitis.....											2	1										
Consumption (phthisis pulmonalis).....	18	21	16	23			64	62		72	66	72	67		122	112	49	28				
Tabes mesenterica.....							1				3				2							
Total tubercular diseases.....	20	25	17	24			121	113		154	142	85	82		137	123	52	30				
Total constitutional diseases.....	32	54	18	35			129	132		157	150	111	118		163	158	66	49				
CLASS III.—LOCAL DISEASES.																						
Order 1.—Nervous system.																						
Meningitis, cerebral.....																						
cerebro-spinal.....																						
spinal.....																						
Inflammation of brain.....	1						2			2		1			3							
Softening of brain.....	4	2	2				2	2		1		6	4		6	2	2	3	3			
Congestion of brain.....		1					9	7		4	3	7	1			5	3	3				
Abscess of brain.....							1	1		1		1				1	1					
Edema of brain.....	1																					
Apoplexy.....	8	21	6	10			15	6		2	2	36	23		17	24	15	9				
Insanity.....	5	5	1				2	2				14	5		4	5	15	4				
Epilepsy.....							2	2		2		5			3	2	6					
Convulsions.....		1					25	24		43	41		2		3	1						
Trismus nascentium.....							9	4		20	7											
Tetanus.....							1															
Hemiplegia.....	3	1	3					1				2	4		2	3	2	2				



TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE.		RECAPITULATION.										1891.					
			Deaths per 1,000 inhabitants.		Total by color and sex.				Total by color.		Total by sex.		July.			August.				
			W.	C.	M.	F.	M.	F.	W.	C.	M.	F.	W.	M.	F.	W.	M.	F.		
CLASS III.—LOCAL DISEASES.																				
Order 4.—Digestive organs.																				
Dentition.....	56	.918	.172	.306	14	16	11	15	30	26	25	31	2	3	2	4	2	2		
Gastritis.....	53	.869	.235	.142	18	23	4	8	41	12	22	31	1	2	1	2	1	1		
Enteritis.....	39	.640	.120	.211	11	10	7	11	21	18	18	21	5	1	1	3	2	3		
Gastro-enteritis.....	46	.754	.183	.164	14	18	6	8	32	14	20	26	2	1	2	1	2	1		
Colitis.....	6	.098	.029	.012	3	2	1	.....	5	1	4	2	.....	.....	.....	.....	.....	.....		
Gastric ulcer.....	6	.098	.034	.....	2	4	.....	.....	6	.....	2	4	.....	.....	.....	.....	.....	.....		
Hemorrhagia gastrica.....	5	.082	.017	.024	2	1	.....	2	3	2	2	3	.....	.....	.....	.....	.....	.....		
Indigestion (dyspepsia).....	11	.180	.046	.035	3	5	1	2	8	3	4	7	.....	.....	.....	.....	.....	.....		
Obstruction of intestines.....	19	.312	.086	.047	6	9	3	1	15	4	9	10	1	.....	.....	.....	.....	.....		
Typhlitis.....	8	.132	.046	.....	4	4	.....	.....	8	.....	4	4	1	.....	.....	.....	.....	.....		
Peritonitis.....	40	.656	.125	.211	10	12	4	14	22	18	14	26	2	1	1	2	1	.....		
Hernia (strangulated).....	9	.147	.023	.059	4	.....	5	.....	4	5	9	.....	.....	.....	.....	.....	.....	.....		
Intussusception.....	5	.082	.011	.035	.....	2	1	2	2	3	1	4	.....	.....	.....	.....	.....	.....		
Ulceration of intestines.....	7	.114	.011	.059	2	.....	4	1	1	5	6	.....	.....	.....	.....	.....	.....	.....		
Occlusion of bile duct.....	1	.016	.006	.....	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....		
Jaundice (icterus).....	8	.133	.046	.....	4	4	.....	.....	8	.....	4	4	.....	.....	.....	.....	.....	.....		
Cirrhosis of liver.....	23	.379	.120	.024	18	3	1	1	21	2	19	4	1	.....	.....	.....	1	.....		
Abscess of liver.....	12	.196	.051	.035	7	2	3	.....	9	3	10	2	1	.....	.....	1	1	.....		
Hypertrophy of liver.....	5	.082	.011	.035	.....	2	3	.....	2	3	3	2	.....	.....	.....	.....	.....	.....		
Atrophy of liver.....	1	.016	.006	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....		
Hemorrhoids.....	1	.016	.....	.012	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....		
Paralysis of the intestines.....	3	.050	.011	.012	2	.....	1	.....	2	1	3	.....	.....	.....	.....	.....	.....	.....		
Gastric catarrh.....	15	.246	.068	.035	6	6	2	1	12	3	8	7	1	.....	.....	.....	.....	.....		
Gastro-intestinal catarrh.....	26	.427	.068	.164	5	7	5	9	12	14	10	16	2	.....	.....	1	1	.....		
Enteric catarrh.....	6	.098	.029	.012	3	2	.....	1	5	1	3	3	.....	.....	.....	.....	.....	.....		
Neuralgia of stomach.....	2	.032	.006	.012	.....	1	1	.....	1	1	1	1	.....	.....	.....	.....	.....	.....		
Hepatitis.....	16	.263	.057	.070	4	6	4	2	10	6	8	1	.....	2	.....	1	2	.....		
Constipation.....	1	.016	.....	.012	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....		
Stricture of cesophagus.....	4	.066	.023	.....	3	1	.....	.....	4	.....	3	1	.....	.....	.....	1	.....	.....		
Tumor of glottis.....	3	.049	.006	.024	1	.....	1	.....	1	2	2	1	.....	.....	.....	.....	.....	1		
Rectitis.....	5	.082	.023	.012	4	.....	1	.....	4	1	5	.....	.....	.....	.....	.....	.....	.....		
Congestion of spleen.....	2	.032	.011	.....	1	1	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....		
Total diseases of the digestive organs.....	444	7.281	1.680	1.764	152	142	69	81	294	150	221	223	21	21	19	10	14	9		





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	1891.												1892.											
	September.			Total first quarter.			October.			November.			December.			Total second quarter.			January.					
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.			
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.				
CLASS III.—LOCAL DISEASES.																								
Order 4.—Digestive organs.																								
Dentition	2	4	3	8	3	7	1	1	1	3	4	1	1	1	2	4	1	3	1	1	1			
Gastritis		1	3	4	1	5	1	1	1	2	2	1	1	2	2	7	5	3	1	2	2			
Enteritis	1	1		9	4	4	1	1	1	1	1			1	1	1	3	1	2	1	1			
Gastro-enteritis		6	2	3	10	5	1	1	1	1	1					3	4		1					
Colitis	1	1			2											1	2							
Gastric ulcer				1	1											1	1							
Hemorrhagia gastrica		1		1	1												3				1			
Indigestion (dyspepsia)				2	1	1				4						1	5	2						
Obstruction of intestines				2	1					1						1	2	4	1	5	1			
Typhlitis				2	2	1				1	2					1	1	1		2	1			
Peritonitis	1			3	1	2																		
Hernia (strangulated)		1																						
Intussusception																								
Ulceration of intestines																								
Occlusion of bile duct				1						1							1							
Jaundice (icterus)				3												2	1	1		1	1			
Cirrhosis of liver				2	1	1				1	1					2	5	2	1	1	1			
Abscess of liver				1						1						1	1	1						
Hypertrophy of liver																								
Atrophy of liver				1																				
Hemorrhoids																								
Paralysis of the intestines				1																				
Gastric catarrh				1	3	1										2	2	1	1	1	1			
Gastrointestinal catarrh	1		1	2	2	1				1						1	1	1						
Enteric catarrh				1	1	1																		
Neuralgia of stomach																								
Hepatitis				1	2	2																		
Constipation																								
Stricture of oesophagus				1		1																		
Tumor of glottis																								
Rectitis	2			2												1				1	1			
Congestion of spleen																								
Total diseases of the digestive organs	8	15	4	10	50	48	21	29	11	17	2	6	15	8	3	3	9	9	7	5	35	34		





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	1892.												Total fourth quarter.						
	February.			March.			Total third quarter.			April.			May.			June.			
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		
CLASS III.—LOCAL DISEASES.																			
Order 4.—Digestive organs.																			
Dentition.....	2	2					2	4		1	2		1	2		2	3	1	3
Gastritis.....				1	4		1	1					2	2		1	1	1	4
Enteritis.....	1			2	1		3	1			1			1		3	2	1	
Gastroenteritis.....	1						2	1						1					
Colitis.....	1			1			1												
Gastric ulcer.....							1				1								
Hemorrhagia gastrica.....	1			1			1	1			1					1	1		
Indigestion (dyspepsia).....	1	1					1	1					2			1	2		
Obstruction of intestines.....							1									1	1		
Typhlitis.....	1	1		1	2		1	5		1	2		2			1	1	2	4
Peritonitis.....							1				1								
Hernia (strangulated).....											1		1						
Intussusception.....																			
Ulceration of intestines.....																2			
Occlusion of bile duct.....																			
Jaundice (icterus).....	1						1	3		2	2		1	2		3	1		1
Cirrhosis of liver.....	2	1			1									2					
Abscess of liver.....																			
Hypertrophy of liver.....																			
Atrophy of liver.....																1			
Hemorrhoids.....																			
Paralysis of the intestines.....																			
Gastric catarrh.....	2	1			1		3	2					1	2		2	1	1	5
Gastrointestinal catarrh.....							1	1		3	1		1	2					
Enteric catarrh.....							1									2	1	1	
Neuralgia of stomach.....																			
Hepatitis.....							2						1			3	2	2	
Constipation.....																			
Stricture of oesophagus.....																			
Tumor of glottis.....	1						1						1			1	1	1	
Rectitis.....																			
Congestion of spleen.....																			
Total diseases of the digestive organs.....	11	8	4	7	8	10	29	30	14	22	7	9	7	3	10	5	4	5	8

Order 5.—*Urinary organs.*

Bright's disease	2	2	2	4	1	1	7	3	1	2	3	7	12	7	2	3
Nephritis	2	1	1	4	2	1	12	3	3	2	2	1	7	4	2	6
Albuminuria	1	1	1	1	1	1	4	2	3	1	3	1	1	1	2	3
Cystitis	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Diabetes				1	1	1	1	1	2	2	1	1	1	1	1	1
Uræmia				1	1	1	2	3	1	1	3	3	4	3	2	1
Hypertrophy of prostate gland				1	1	1	3	1	1	1	1	1	1	1	1	1
Urethral stricture				1	1	1	1	1	1	1	1	1	1	1	1	1
Lithiasis				1	1	1	1	1	1	1	1	1	1	1	1	1
Morbus Addisonii				1	1	1	1	1	1	1	1	1	1	1	1	1
Congestion of kidney				1	1	1	1	1	1	1	1	1	1	1	1	1
Tuberculosis of kidney				1	1	1	1	1	1	1	1	1	1	1	1	1
Cirrhosis of kidney				1	1	1	1	1	1	1	1	1	1	1	1	1
Hemorrhage of kidneys				1	1	1	1	1	1	1	1	1	1	1	1	1
Total diseases of the urinary organs	5	5	3	2	15	7	31	18	6	6	12	3	4	5	2	14

Order 6.—*Generative organs.*

Metrorrhagia																
Metritis																
Gangrene of genital organs																
Uterine fibroids																
Ovarian tumor																
Salpingitis																
Ovarian dropsy																
Total diseases of the generative organs	1	1	1	3	1	1	2	5	5	1	1	1	1	1	1	5

Order 7.—*Osseous and locomotory.*

Gangrene of leg																
Ulcer of leg																
Arthritis																
Caries of pelvis																
Necrosis of the tibia and knee joint																
Osteo-sarcoma, leg																
Total osseous and locomotory	2	2	1	1	1	1	2	2	1	1	2	2	2	1	3	1

Order 8.—*Integumentary.*

Otitis																
Gluteal abscess																
Epistaxis																
Fistula of scrotum																
Total integumentary diseases	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1
Total local diseases	84	79	66	61	92	74	58	62	321	253	190	82	44	59	41	119

TABLE I—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.																Per cent of each cause to total mor-tality un-der 5 years of age.		
	Under 1 year.			1 to 2 years.			2 to 3 years.			3 to 4 years.			4 to 5 years.			Total under 5 years.			
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
CLASS III.—LOCAL DISEASES.																			
Order 4.—Digestive organs.																			
Dentition.....	7	12	6	9	6	4	4	5	1	1	1	1	1	14	16	11	15	56	2.56
Gastritis.....	1	3	1	1	2	2	2	2	1	1	1	1	1	1	5	1	1	8	.37
Enteritis.....	3	2	7	2	2	2	1	2	1	1	1	1	1	5	2	7	5	19	.86
Gastroenteritis.....	4	7	3	5	2	2	1	1	2	1	1	1	1	9	9	4	6	28	1.27
Colitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	.13
Gastric ulcer.....																		1	.05
Hemorrhagia gastrica.....																		1	.05
Indigestion (dyspepsia).....	2	2	1	1	1	1	1	1	1	1	1	1	1	3	2	2	2	7	.32
Obstruction of intestines.....																		1	.05
Typhilitis.....																		1	.05
Peritonitis.....																		2	.10
Hernia (strangulated).....			2	1												2	1	1	.05
Intussusception.....			1	1												1	1	1	.05
Ulceration of intestines.....			1															3	.13
Occlusion of bileduct.....																			
Jaundice (icterus).....	2	1												2	1	1			
Cirrhosis of liver.....																			
Abscess of liver.....																			
Hypertrophy of liver.....																			
Atrophy of liver.....																			
Hemorrhoids.....			1													1		1	.05
Paralysis of the intestines.....																		3	.13
Gastric catarrh.....	3		2	5	1	1	2							3	1	5	6	14	.63
Gastrointestinal catarrh.....	1													2	1				
Enteric catarrh.....	2	1	1	1										2	1	1	1	4	.18
Neuralgia of stomach.....																		1	.05
Hepatitis.....																		1	.05
Constipation.....																		1	.05
Stricture of cesophagus.....	1													1		1	1	2	.10
Tumor of glottis.....			1	1														1	.05
Rectitis.....	1																		
Congestion of spleen.....																			
Total diseases of the digestive organs.....	28	29	25	27	11	6	7	8	3	1	2	3	2	3	1	1	39	158	7.23





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.																	
	5 to 10 years.			10 to 20 years.			20 to 30 years.			30 to 40 years.			40 to 50 years.			50 to 60 years.		
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
Dentition.....	1	1					2	1		2	2		2	1		5	5	
Gastritis.....				3	1		2	1		2	1		2	1		3	3	
E.teritis.....	1						1	2		1	1		1	1		1	1	
Gastroenteritis.....		2					1	1		1	1					2	3	
Colitis.....										1	1					1		
Gastric ulcer.....				1														
Hemorrhagia gastrica.....							1						1					
Indigestion (dyspepsia).....				2				1		1	1					2	2	
Obstruction of intestines.....							2			2	1		1	1		1	1	
Typhilitis.....				1	2		2	6		1	2		4	2		1	1	
Peritonitis.....	1						2	1		2	1		1	1		1	1	
Hernia (strangulated).....				1			1											
Intussusception.....	1																	
Ulceration of intestines.....																		
Oeduction of bileduct.....																		
Jaundice (icterus).....										1	1							
Cirrhosis of liver.....										2	1		1	7		4	5	
Abscess of liver.....				1			1			1	1					1	2	
Hypertrophy of liver.....																		
Atrophy of liver.....																		
Hemorrhoids.....																		
Paralysis of the intestines.....																		
Gastric catarrh.....										1	2					1	1	
Gastrointestinal catarrh.....																1	2	
Enteric catarrh.....																		
Neuralgia of stomach.....																		
Hepatitis.....																		
Constipation.....																		
Stricture of esophagus.....																		
Tumor of glottis.....																		
Rectitis.....	1																	
Congestion of spleen.....																		
Total diseases of the digestive organs.....	3	3		2	2		2	8		2	2		6	10		15	16	





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.												SOCIAL RELATIONS.									
	70 to 80 years.				80 to 90 years.				Above 90 years.				Unknown age.				Married.			Single.		
	W.		C.		W.		C.		W.		C.		W.		C.		W.		C.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
CLASS III.—LOCAL DISEASES.																						
Order 4.—Digestive organs.																						
Dentition																						
Gastritis	2	2																				
Enteritis	3	1	1																			
Gastroenteritis	1			1																		
Colitis																						
Gastric ulcer		1																				
Hemorrhagia gastrica																						
Indigestion (dyspepsia)		2																				
Obstruction of intestines		1	1																			
Typhlitis		1																				
Peritonitis	2																					
Hernia (strangulated)																						
Intussusception																						
Ulceration of intestines																						
Occlusion of bileduct																						
Jaundice (icterus)	1	1		1																		
Cirrhosis of liver																						
Abscess of liver			1																			
Hypertrophy of liver		1																				
Atrophy of liver																						
Hemorrhoids																						
Paralysis of the intestines																						
Gastric catarrh		2		1																		
Gastrointestinal catarrh	1	1		2																		
Enteric catarrh	1	1																				
Neuralgia of stomach		1																				
Hepatitis		1																				
Constipation																						
Stricture of oesophagus	1																					
Tumor of glottis																						
Rectitis																						
Congestion of spleen																						
Total diseases of the digestive organs	12	16	2	1	5	4											73	65	47	57		

Order 5.—Urinary organs.

Bright's disease	2	3	1	2	1	1	1	1	14	9	5	4	8	2	5	5
Nephritis	9	3	1	1	2	2	1	1	23	8	6	8	9	3	1	3
Albuminuria									3	3	1	3	1	1	1	1
Cystitis	4					1			9	1		2	2	4	1	1
Diabetes		1		1					7	2				1	1	1
Uræmia		1							5							
Hypertrophy of prostate gland	4				2				1	1			1			
Urethral stricture									1							
Lithiasis	1								1							
Morbus Addisonii																
Congestion of kidney									1				1	1		
Tuberculosis of kidney									1				1	1		
Cirrhosis of kidney									1	1				1		
Hemorrhage of kidney									1							
Total diseases of the urinary organs	20	8	2	3	6	1			67	25	14	17	23	12	8	11

Order 6.—Generative organs.

Metrorrhagia																
Metritis										1		1				
Gangrene of genital organs										1		1				
Uterine fibroids										4	1	5		1		2
Ovarian tumor										2		2		2		2
Salpingitis										1				1		1
Ovarian dropsy												1				
Total diseases of the generative organs										8	1	10		4		5

Order 7.—Osseous and locomotory.

Gangrene of leg	1		1													
foot											1		1			
Ulcer of leg		1		1	1										1	
foot																
Arthritis														1		
Caries of pelvis																
ribs																
Necrosis of the tibia and knee joint															2	1
Osteo-sarcoma, leg																1
Total osseous and locomotory		2	1	2	1						1		3	1	3	2

Order 8.—Integumentary.

Otitis																
Gluteal abscess																1
Epistaxis														2		
Fistula of scrotum																
Total integumentary diseases															2	1
Total local diseases	125	106	26	28	36	43	11	14	2	4	6			285	334	317

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	SOCIAL RELATIONS.						NATIVITY.											
	Widow or widower.			Unknown.			District of Columbia.				Other parts of United States.				Foreign.			
	W.		C.	W.		C.	W.		F.	C.	W.		F.	C.	W.		F.	C.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>CLASS III.—LOCAL DISEASES.</b>																		
<b>Order 4.—Digestive organs.</b>																		
Dentition.....	3	5	1	3			14	15		11	15				1	6	6	
Gastritis.....	2						4	10		1	2				6	7		
Enteritis.....	2	4		2			6	2		7	7				2	3		
Gastroenteritis.....	1			1			8	10		6	6				2	4		
Colitis.....	1	1					1	1		1					2			
Gastric ulcer.....	1						1	3										
Hemorrhagia gastrica.....	1	2					3	2			2				1			
Indigestion (dyspepsia).....	1	4					1	3		1	1				1			
Obstruction of intestines.....	1	1																
Typhlitis.....	2	1	2	1			1	5			5				2	10		
Peritonitis.....							1			2					3	1		
Hernia (strangulated).....								1		1					1			
Intussusception.....										1								
Ulceration of intestines.....		1								1					1			
Occlusion of bile duct.....	1	2						1										
Jaundice (icterus).....	1	3					2	1							2			
Cirrhosis of liver.....	3		1				2	1							9	1		
Abscess of liver.....	1						2								2			
Hypertrophy of liver.....		1													1			
Atrophy of liver.....																		
Hemorrhoids.....																		
Paralysis of the intestines.....	1									1								
Gastric catarrh.....	1	3		1			3	3			2				2	1		
Gastrointestinal catarrh.....		4		2			3	4		5	8				1	1		
Enteric catarrh.....							2	1			1							
Neuralgia of stomach.....							1	2		1								
Hepatitis.....				1							2				1	2		
Constipation.....																		
Stricture of esophagus.....	1	1					1				1				2			
Tumor of glottis.....										1								
Rectitis.....	1						2								1			
Congestion of spleen.....																		
Total diseases of the digestive organs.....	22	30	4	11			58	64	39	51	48	54	30	30	46	24		





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE.		RECAPITULATION.										1891.							
			Deaths per 1,000 inhabitants.		Total by color and sex.				Total by -color.		Total by sex.		July.				August.					
			W.	C.	W.		C.		W.	C.	M.	F.	M.	F.	W.	M.	F.	W.	M.	F.		
					M.	F.	M.	F.														
Class IV.—DEVELOPMENTAL DISEASES.																						
Order 1.—Children.																						
Premature birth.....	119	1.952	.389	.600	41	27	28	23		68	51	69	50	3	1	2	3	2	1	3	1	
Congenital debility.....	97	1.589	.200	.730	17	18	41	21		35	62	58	39	1	3	3	5	2	1	3	1	
malformation.....	7	.114	.023	.035	2	2	3			4	3	5	2			1						
Atlectasis pulmonum (cyanosis).....	23	.379	.081	.105	5	9	5	4		14	9	10	13		2	1	1	1				
Spina bifida.....	2	.033	.011		3	2				2			2									
Umbilical hemorrhage.....	11	.180	.017	.094			6	2		3	8	9	2			1	1	1				
Asphyxia.....	5	.082	.023	.012	3	1	1			4	1	4	1							1		
Icterus neonatorum.....	7	.114	.011	.059	1	1	1	4		2	5	2	5		1				1	1	1	
Protracted labor.....	10	.164	.029	.059	3	2	2	3		5	5	5	5		1							
Hemorrhagic diathesis.....	2	.033	.006	.012	1		1			1	1	2										
Nonviable.....	9	.148	.040	.024	3	4	2			7	2	5	4									
Foramen ovale (open).....	3	.050	.017		1	2				3		1	2				1					
Total diseases of children.....	295	4.838	.847	1.730	80	68	90	57		148	147	170	125	4	8	8	10	6	2	9	2	
Order 2.—Women.																						
Prolonged labor.....	7	.114	.028	.023		5		2		5	2		7		1							
Extra-uterine pregnancy.....	1	.016		.012				1			1		1									
Puerperal convulsions.....	4	.065	.011	.023		2		2		2	2		4									
metritis.....	3	.050	.011	.012		2		1		2	1		3									
septicæmia.....	17	.278	.086	.023		15		2		15	2		17						1			
fever.....	15	.246	.063	.047		11		4		11	4		15		1				1		2	
mania.....	2	.033	.006	.012		1		1		1	1		2									
hemorrhage.....	2	.033	.006	.012		1		1		1	1		2									
peritonitis.....	8	.132	.029	.035		5		3		5	3		8		2				1			
hyperemesis.....	2	.033	.011			2				2			2									
Menopause.....	2	.033	.006	.012		1		1		1	1		2						1			
Miscarriage.....	2	.033	.006	.012		1				1			2						1			
Placenta prævia.....	8	.132	.034	.024		6		2		6	2		8									
	1	.016	.006			1				1			1									
Total diseases of women.....	72	1.181	.297	.235	52			20		52	20		72	4				4			2	

## Order 3.—Old age.

Senile debility.....	173	2.836	.571	.858	36	64	32	41	100	73	68	105	1	6	5	3	2	5	2	1
gangrene.....	4	.065	.11	.024	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
Total diseases of old age.....	177	2.901	.582	.882	37	65	33	42	102	75	70	107	1	6	5	3	2	5	2	1

## Order 4.—Nutrition.

General debility.....	14	.230	.074	.012	6	7	1	.....	13	1	7	7	.....	.....	.....	.....	.....	.....	.....	.....
Total diseases of nutrition.....	14	.230	.074	.012	6	7	1	.....	13	1	7	7	.....	.....	.....	.....	.....	.....	.....	.....
Total developmental diseases.....	558	9.150	1.800	2.859	123	192	124	119	315	243	247	311	5	18	13	9	12	11	11	5

## CLASS V.—VIOLENCE.

## Order 1.—Accidents and negligence.

Fall of building.....	1	.016	.006	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drowned.....	32	.526	.102	.164	17	1	14	.....	18	14	31	1	4	.....	1	.....	1	.....	.....	.....
Railway accident.....	16	.263	.057	.070	3	2	5	1	10	6	13	3	1	.....	.....	.....	1	.....	.....	.....
Pistol or gun shot.....	3	.049	.011	.012	2	.....	.....	1	2	1	2	1	.....	.....	.....	.....	1	.....	.....	.....
Falls.....	32	.526	.126	.118	16	6	10	.....	22	10	26	6	1	.....	.....	.....	2	1	1	.....
Burns and scalds.....	18	.294	.034	.142	3	3	2	.....	6	12	5	13	1	1	.....	1	.....	1	.....	.....
Inhalation of gas (illuminating).....	8	.131	.029	.035	5	.....	.....	10	5	3	5	3	.....	.....	.....	.....	.....	.....	.....	.....
Overlaid by mother.....	4	.065	.006	.035	1	.....	.....	3	1	3	3	1	.....	.....	.....	.....	.....	.....	.....	.....
Neglect.....	8	.131	.006	.082	.....	1	3	4	1	7	3	5	.....	.....	.....	.....	.....	.....	.....	.....
Fall of derrick.....	1	.016	.006	.....	1	2	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Run over by vehicle.....	4	.065	.023	.....	2	2	.....	.....	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Traumatic septicemia.....	6	.098	.017	.035	3	.....	3	.....	4	3	2	2	.....	.....	.....	.....	.....	.....	.....	.....
hemorrhage.....	6	.098	.029	.012	4	.....	1	.....	5	1	6	5	.....	.....	.....	.....	.....	.....	.....	.....
tetanus.....	9	.147	.017	.070	2	1	3	.....	3	6	5	4	.....	.....	.....	1	.....	1	.....	.....
Fracture of femur.....	8	.131	.045	.012	1	7	.....	3	8	.....	1	7	.....	.....	.....	1	.....	1	.....	.....
Overdose of narcotic or anæsthetic poison.....	3	.049	.011	.012	2	.....	.....	1	2	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Concentrated lye.....	1	.016	.....	.....	.....	.....	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total accidents and negligence.....	160	2.621	.525	.799	108	24	44	24	92	68	112	48	11	1	1	2	4	3	3	.....

Order 2.—Judicial executions.  
(None.)

## Order 11.—Homicides.

Infanticide, strangulation.....	4	.066	.017	.012	2	1	.....	1	3	1	2	2	.....	.....	.....	1	.....	.....	.....	.....
neglect.....	13	.215	.011	.129	2	.....	8	3	2	11	10	3	.....	.....	1	.....	1	.....	.....	.....
Bite (human).....	1	.016	.....	.012	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pistol shot.....	8	.132	.034	.024	4	2	2	.....	6	2	6	2	.....	.....	1	.....	.....	.....	.....	.....
Fracture of skull.....	2	.033	.012	.....	2	.....	3	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stabbed.....	5	.082	.012	.035	2	.....	.....	.....	2	3	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total homicides.....	33	.544	.080	.212	12	3	14	4	15	18	26	7	.....	.....	2	1	1	.....	1	1



TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	1891.												1892.										
	September.			Total first quarter.			October.			November.			December.			Total second quarter.			January.				
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.		
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.			
CLASS IV.—DEVELOPMENTAL DISEASES.																							
Order 1.—Children.																							
Premature birth.....	3	3	1	2	8	5	6	6	4	3	4	5	1	7	2	3	2	12	5	7	2	5	
Congenital debility.....			3	2	6	3	9	5	1	4	4	2	2	2	2	3	4	5	1	1	1	4	
malformation.....							2							1				1					
Atlectasis pulmonum (cyanosis).....					1	2	1			1					2								
Spina bifida.....										1													
Umbilical hemorrhage.....	1				2		2							1				1					
Asphyxia.....																							
Icterus neonatorum.....							1																
Protracted labor.....							2	1					2					2					
Hemorrhagic diathesis.....														1				1					
Nonviable.....	1				1		1			1													
Foramen ovale (open).....					1																		
Total diseases of children.....	5	3	6	4	19	13	23	12	4	10	8	7	5	5	12	5	8	6	23	20	16	8	11
Order 2.—Women.																							
Prolonged labor.....							1													2			
Extra-uterine pregnancy.....				1				1								1							
Puerperal convulsions.....																							
metritis.....																							
septicæmia.....	2			1			3	1												1			1
fever.....	2						4	2		1						1				1			
mania.....																							
hemorrhage.....																							
peritonitis.....	1						3																
hyperemesis.....																							
Menopause.....																							
Miscariage.....																							
Placenta prævia.....																							
Total diseases of women.....	6		2				14	4		2			3			4		2		9		2	1

Order 3.—*Old age.*

Senile debility ..... 3 7 1 5 6 18 8 9 5 3 3 2 1 9 2 1 4 6 1 4 10 18 6 7 4 6 5 6  
 gangrene ..... 1 1

Total diseases of old age..... 3 7 1 6 6 18 8 10 5 3 3 2 2 9 2 1 4 6 1 4 11 18 6 7 4 6 5 6

Order 4.—*Nutrition.*

General debility ..... 2 2 3 1

Total diseases of nutrition..... 2 2 3 1

Total developmental diseases..... 8 16 7 12 25 45 31 26 11 18 11 9 9 17 12 4 10 15 10 12 36 50 33 25 12 13 16 16

## CLASS V.—VIOLENCE.

Order 1.—*Accidents and negligence.*

Fall of building..... 5 1 3 10 1 4 1 1 2 2 2 1 2 2 1 2 2 2 2 1 2 2 4 1 1 1 1  
 Drowned..... 1 1 1 2 1  
 Railway accident..... 1  
 Pistol or gunshot..... 1  
 Falls..... 1  
 Burns and scalds..... 1  
 Inhalation of gas (illuminating)..... 1  
 Overlaid by mother..... 1  
 Neglect..... 1  
 Fall of derrick..... 1  
 Run over by vehicle..... 1  
 Traumatic septicæmia..... 1  
 hemorrhage..... 1  
 tetanus..... 1  
 Fracture of femur..... 1  
 Overdose of narcotic or anæsthetic poison..... 1  
 Concentrated lye..... 1

Total accidents and negligence..... 10 4 5 25 8 9 2 5 5 1 3 5 5 2 6 2 6 1 7 2 16 4 16 9 4 1 1 1 1

Order 2.—*Judicial executions.*  
(None.)Order 3.—*Homicides.*

Infanticide, strangulation..... 1  
 neglect..... 1  
 Bite (human)..... 1  
 Pistol shot..... 1  
 Fracture of skull..... 1  
 Stabbed..... 1

Total homicides..... 1 1 1 2 3 3 2 2 2 1 1 1 1 2 3 1 2 2 2 3 1 6 1 4 4 4 4 4

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc., etc.—Continued.

1892.																									
Cause of death.	February.			March.			Total third quarter.			April.			May.			June.			Total fourth quarter.						
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
CLASS IV.—DEVELOPMENTAL DISEASES.																									
Order 1.—Children.																									
Premature birth.....	3	3	1	4	3	4	13	9	6	2	5	1	3	2	2	3	1	5	1	8	8	4			
Congenital debility.....		1	1		2		2	2	5		4		3	1	2	1	1	3		4	6	4			
malformation.....		1			1		1	1		1					1	1	1			1	1				
Atlectasis pulmonum (cyamosis)																									
Spina bifida.....					1	2	1	3	1				2	2	1	1	1	1		3	1	2			
Umbilical hemorrhage.....			1					1		2															
Asphyxia.....																									
Icterus neonatorum.....					1		1						2	1		1				2					
Protracted labor.....																				1		2			
Hemorrhagic diathesis.....																									
Nonviable.....	1						1	2	1					1						1					
Foramen ovale (open).....																					1				
Total diseases of children.....	3	6	3	4	7	6	18	18	19	17	4	9	8	10	3	5	3	6	5	9	1	20	17	22	12
Order 2.—Women.																									
Prolonged labor.....		2		1				2		2															
Extra-uterine pregnancy.....																									
Puerperal convulsions.....																									
metritis.....																									
septicæmia.....	3				1			5		1					4	1			1						
fever.....	2			2	1			3		2									2						
mania.....																			1						
hemorrhage.....					1			1											1						
peritonitis.....																									
hyperemesis.....																									
Menopause.....																									
Miscarriage.....	1			1				1							1				1			2			
Placenta prævia.....															1						1				
Total diseases of women.....		8		4		3	12	2	7					4	10		3		7			17		7	



## Order 3.—Old age.

Senile debility .....	3	1	2	5	1	4	1	4	8	11	8	15	4	7	4	5	3	4	4	4	4	5	6	2	1	12	17	10	10
gangrene.....							1				1							1									1		
Total diseases of old age.....	3	1	2	5	1	4	2	4	8	11	9	15	4	7	4	5	3	5	4	4	5	6	2	1	12	18	10	10	

## Order 4.—Nutrition.

General debility .....						2	1			2	1				2	1								2		3		.....
Total diseases of nutrition.....						2	1			2	1				2	1								2		3		.....
Total developmental diseases .....	6	15	5	13	10	14	7	10	28	42	28	39	10	17	12	17	13	18	9	10	11	20	11	2	34	55	29	90

## CLASS V.—VIOLENCE.

## Order 1.—Accidents and negligence.

Fall of building.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
-----------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Order 2.—Judicial executions.  
(None.)

## Order 3.—Homicides.

Infanticide, strangulation .....																												
neglect.....																												
Bite (human) .....																												
Pistol shot.....						1			2	2	1		1														3	1
Fracture of skull .....	1								1																			
Stabbed.....									1																			
Total homicides.....	1	1	1			1	1		5	2	2					3			1						2		3	1

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.																Per cent of each cause to total mor-tality un-der 5 years of age.									
	Under 1 year.				1 to 2 years.				2 to 3 years.				3 to 4 years.					4 to 5 years.				Total under 5 years.				Total.
	W.		C.		W.		C.		W.		C.		W.		C.			W.		C.		W.	M.	F.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.										
CLASS IV.—DEVELOPMENTAL DISEASES.																										
Order 1.—Children.																										
Premature birth.....	41	27	28	23														41	27	28	23	119	5.45			
Congenital debility.....	16	18	40	21	1													17	18	41	21	97	4.55			
malformation.....	2	2	3															2	2	3		7	.32			
Atlectasis pulmonum (cyanosis).....	5	9	5	4														5	9	5	4	23	1.06			
Spina bifida.....		2																	2				2	.10		
Umbilical hemorrhage.....	3		6	2														3		6	2	11	.50			
Asphyxia.....	3	1	1															3	1	1		5	.23			
Icterus neonatorum.....	1	1	1	4														1	1	1	4	7	.32			
Protracted labor.....	3	2	2	3														3	2	2	3	10	.45			
Hemorrhagic diathesis.....	1		1															1		1		2	.10			
Nonviable.....	3	4	2															3	4	2		9	.41			
Foramen ovale (open).....	1	2																1	2			3	.13			
Total diseases of children.....	79	68	89	57	1													80	68	00	57	295	13.52			
Order 2.—Women.																										
Prolonged labor.....																										
Extra-uterine pregnancy.....																										
Puerperal convulsions.....																										
metritis.....																										
septicæmia.....																										
fever.....																										
mania.....																										
hemorrhage.....																										
peritonitis.....																										
hyperemesis.....																										
Menopause.....																										
Miscarriage.....																										
Placenta prævia.....																										
Total diseases of women.....																										





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.											
	5 to 10 years.			10 to 20 years.			20 to 30 years.			30 to 40 years.		
	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
<b>CLASS IV.—DEVELOPMENTAL DISEASES.</b>												
Order 1.—Children.												
Premature birth.....												
Congenital debility.....												
malformation.....												
Atletasis pulmonum (cyanosis)												
Spina bifida.....												
Umbilical hemorrhage.....												
Asphyxia.....												
Icterus neonatorum.....												
Protracted labor.....												
Hemorrhagic diathesis.....												
Nonviable.....												
Foramen ovale (open).....												
Total diseases of children.....												
Order 2.—Women.												
Prolonged labor.....							1			2		
Extra-uterine pregnancy.....												1
Puerperal convulsions				1			1					
metritis.....									1			
septicæmia.....							9		1	6		
fever.....							8		3	2		
mania.....							1		1			
hemorrhage.....							1					
peritonitis.....							1		3	1		1
hyperemesis.....				1								
Menopause.....												
Miscarriages.....												
Placenta prævia.....							1					
Total diseases of women.....	2			4			32	10	16	3	2	3

Order 3.—Old age.																										
Senile debility.....																										
gangrene .....																										
Total diseases of old age.....																										
Order 4 —Nutrition.																										
General debility .....																										
Total diseases of nutrition.....																										
Total developmental diseases.....																										
CLASS V.—VIOLENCE.																										
Order 1.—Accidents and negligence.																										
Fall of building.....																										
Drowned.....	3				10	5	2	2	3	2	1	1	1	1	2	1	2	1	1	1	1	1	2	2	9	5
Railway accident.....					1	2	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
Pistol or gunshot.....	2				1	1	1	1	3	1	2	1	1	2	3	3	1	1	1	1	1	1	1	1	1	7
Falls.....					1	1	1	1	1	3	1	2	1	2	3	3	1	1	1	1	1	1	1	1	1	7
Burns and scalds .....					2	2	3	1	1	1	2	1	2	2	2	3	1	1	1	1	1	1	1	1	1	7
Inhalation of gas (illuminating).....						3					1			1												
Overlaid by mother .....																										
Neglect.....					1																					
Fall of derrick.....								1																		
Run over by vehicle.....																										
Traumatic septicæmia.....								1																		
hemorrhage .....	1							1																		
tetanus .....								1	1					1	2											
Fracture of femur .....								1																		
Overdose of narcotic or anæsthetic poison .....								1																		
Concentrated lye.....																										
Total accidents and negligence .....	6	1	3	4	12	9	6	11	1	8	3	4	4	8	3	6	7	3	2	2	1	2	2	3	9	5
Order 2.—Judicial executions.																										
(None).																										
Order 3.—Homicides.																										
Infanticide, strangulation .....																										
neglect.....																										
Bite (human) .....																										
Pistol shot.....								3	2	1	1					1										
Fracture of skull .....								1						1												
Stabbed.....								1																		
Total homicides .....								5	2	2	1			1		2										





[illegible]

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	SOCIAL RELATIONS.								NATIVITY.							
	Widow or widower.				Unknown.				District of Columbia.				Other parts of United States.			
	W.		C.		W.		C.		W.		C.		W.		C.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>CLASS IV.—DEVELOPMENTAL DISEASES.</b>																
Order 1.—Children.																
Premature birth.....									41	27	28	23				
Congenital debility.....									17	18	41	21				
malformation.....									2	2	3					
Atlectasis pulmonum (cyanosis).....									5	9	5	4				
Spina bifida.....										2						
Umbilical hemorrhage.....									3		6	2				
Asphyxia.....									3	1	1					
Icterus neonatorum.....									1	1	1	4				
Protracted labor.....									3	2	2	3				
Hemorrhagic diathesis.....									1		1					
Nonviable.....									3	4	2					
Foramen ovale (open).....									1	2						
Total diseases of children.....									80	68	90	57				
Order 2.—Women.																
Prolonged labor.....										1			3		2	
Extra-uterine pregnancy.....												1				
Puerperal convulsions.....										1		1	1			
metritis.....													2			
septicæmia.....	1									6		1	8		1	
fever.....										5		4			2	
mania.....															1	
hemorrhage.....										1						
peritonitis.....										3		1	2			
hyperemesis.....										1			1			
Menopause.....															1	
Miscarriage.....										2			1		2	
Placenta prævia.....										1			2			
Total diseases of women.....	1									21		4	24		16	7





TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	Total deaths from each cause.	Per cent of each cause to total mortality.	DEATH RATE.			RECAPITULATION.										1891.					
			Deaths per 1,000 inhabitants.			Total by color and sex.				Total by color.		Total by sex.		July.				August.			
						W.		C.				W.		C.				W.		C.	
			W.	C.		M.	F.	M.	F.	W.	C.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
CLASS V.—VIOLENCE.																					
Order 4.—Suicides.																					
Drowning .....	3	.050	.011	.012	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1		
Poison .....	6	.098	.029	.012	3	2	1	1	5	1	3	3	1	1	1	1	1	1	1		
Pistol shot.....	9	.147	.051	.....	8	1	.....	.....	9	.....	8	1	.....	.....	.....	.....	.....	.....	.....		
Strangulation.....	5	.082	.029	.....	5	.....	.....	.....	5	.....	5	.....	.....	.....	.....	.....	.....	.....	.....		
Incised wound of throat .....	2	.033	.011	.....	.....	2	.....	.....	2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....		
Total suicides .....	25	.410	.131	.024	17	6	1	1	23	2	18	7	.....	.....	2	.....	.....	.....	.....		
Order 5.—Wounds in late civil war.																					
Injury.....	2	.033	.011	.....	2	.....	.....	.....	2	.....	2	.....	.....	.....	1	.....	.....	.....	.....		
Wounds.....	2	.032	.011	.....	2	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....		
Total wounds in late civil war .....	4	.065	.023	.....	4	.....	.....	.....	4	.....	4	.....	.....	.....	1	.....	.....	.....	.....		
Total violence .....	222	3.640	.765	1.035	101	33	59	29	134	88	160	62	11	1	3	8	3	4	1		
Total from all causes.....	6,098	100.000	19.666	31.247	1,847	1,595	1,369	1,287	3,442	2,656	3,216	2,882	164	126	133	149	132	128	99		
RECAPITULATION.																					
Zymotic:																					
Miasmatic diseases .....	1,157	18.973	3.785	5.824	356	306	266	229	662	495	622	535	49	42	48	42	42	46	26		
Enthetic diseases.....	30	.492	.120	.106	11	10	2	7	21	9	13	17	2	2	2	1	1	1	1		
Dietic diseases .....	109	1.785	.290	.682	27	24	27	31	51	58	54	55	5	2	2	4	3	4	1		
Parasitic .....	3	.050	.005	.024	1	.....	.....	2	1	2	1	2	.....	.....	.....	.....	.....	.....	1		
Total zymotic diseases .....	1,299	21.300	4.200	6.636	395	340	295	269	735	564	690	609	56	46	50	47	46	50	29		
Constitutional:																					
Diathetic .....	194	3.180	.697	.847	48	74	29	43	122	72	77	117	1	3	2	3	5	1	6		
Tubercular .....	1,039	17.040	2.760	6.541	258	225	291	265	483	556	549	490	30	14	25	14	15	27	28		
Total constitutional diseases .....	1,233	20.220	3.457	7.388	306	299	320	308	605	628	626	607	31	17	27	17	20	28	34		

Local:	737	12,086	2,623	3,272	273	186	149	129	459	278	422	315	19	12	6	14	21	15	14	9
Nervous diseases.....	359	5,887	1,262	1,622	121	100	71	67	221	138	192	167	11	5	8	7	7	12	3	5
Circulatory organs.....	956	15,677	2,766	5,554	261	223	246	226	484	472	507	449	4	3	12	7	7	7	6	5
Respiratory organs.....	444	7,281	1,680	1,764	152	142	69	81	294	150	221	223	21	19	9	10	21	14	8	9
Digestive organs.....	229	3,755	.942	1,753	103	62	29	35	165	64	132	97	5	4	5	4	9	3	4	2
Urinary organs.....	33	.544	.074	.235	.....	13	1	19	13	20	1	32	.....	1	.....	.....	.....	1	.....	.....
Generative organs.....	21	.345	.068	.105	9	3	5	4	12	9	14	7	1	.....	.....	.....	.....	.....	.....	.....
Osseous and locomotory.....	7	.115	.029	.024	3	2	1	1	5	2	4	3	.....	.....	.....	.....	.....	.....	.....	.....
Integumentary.....																				
Total local diseases.....	2,786	45,690	9,444	13,329	922	731	571	562	1,653	1,133	1,493	1,293	61	44	40	42	65	52	35	30
Developmental:																				
Infants.....	295	4,838	.847	1,730	80	68	90	57	148	147	170	125	4	8	8	6	10	2	9	2
Women.....	72	1,181	.297	.235	.....	52	.....	20	52	20	.....	72	.....	4	.....	.....	.....	4	.....	2
Old age.....	177	2,901	.582	.882	37	65	33	42	102	75	70	107	1	6	5	3	2	5	2	1
Nutrition.....	14	.230	.074	.012	6	7	1	.....	13	1	7	7	.....	.....	.....	.....	.....	.....	.....	.....
Total developmental diseases.....	558	9,150	1,800	2,859	123	192	124	119	315	243	247	311	5	18	13	9	12	11	11	5
Violence:																				
Accidents and negligence.....	160	2,621	.525	.799	68	24	44	24	92	68	112	48	11	1	1	2	4	3	3	.....
Judicial executions.....	0	0	0	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Homicides.....	33	.544	.086	.212	12	3	14	4	15	18	26	7	.....	.....	2	1	1	.....	1	1
Suicides.....	25	.410	.131	.024	17	6	1	1	23	2	18	7	.....	.....	.....	.....	2	.....	.....	.....
Wounds received in late civil war.....	4	.065	.023	.....	4	.....	.....	.....	4	.....	4	.....	.....	.....	.....	.....	1	.....	.....	.....
Total violence.....	222	3,640	.765	1,035	101	33	59	29	134	88	160	62	11	1	3	3	8	3	4	1
SUMMARY.																				
I. Zymotic diseases.....	1,299	21,300	4,200	6,636	395	340	295	269	735	564	690	609	56	46	50	45	47	46	50	29
II. Constitutional diseases.....	1,233	20,220	3,457	7,388	306	299	320	308	605	628	626	607	31	17	27	28	17	20	28	34
III. Local diseases.....	2,786	45,690	9,444	13,329	922	731	571	562	1,653	1,133	1,493	1,293	61	44	40	42	65	52	35	30
IV. Developmental diseases.....	558	9,150	1,800	2,859	123	192	124	119	315	243	247	311	5	18	13	9	12	11	11	5
V. Violence.....	222	3,640	.765	1,035	101	33	59	29	134	88	160	62	11	1	3	3	8	3	4	1
Grand total from all causes, by sex and color.....	6,098	100,000	19,666	31,247	1,847	1,595	1,369	1,287	3,442	2,656	3,216	2,882	164	126	133	127	149	132	128	99
Total from all causes, by color.....									3,442	2,356	.....	.....	290	.....	260	.....	281	.....	227	
Percentages to total mortality, by color.....									56.44	43.56	.....	.....	4.75	.....	4.26	.....	4.65	.....	3.72	
Rate of death per 1,000 inhabitants, by color.....									19.66	31.24	.....	.....	1.66	.....	3.05	.....	1.61	.....	2.67	
Grand total from all causes.....	6,098								3,442	2,656	3,216	2,882	550	.....	508	.....	.....	.....	.....	
Total death-rate per 1,000 inhabitants.....	23.4								.....	.....	.....	.....	2.12	.....	1.96	.....	.....	.....	.....	







TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	1892.											
	February.			March.			Total third quarter.			May.		
	W. M. F.			W. M. F.			W. M. F.			W. M. F.		
	W.	M.	F.	W.	M.	F.	W.	M.	F.	W.	M.	F.
<b>CLASS V.—VIOLENCE.</b>												
Order 4.—Suicides.												
Drowning .....												1
Poison .....												1
Pistol shot .....		2	1					2			5	
Strangulation .....								1			3	
Incised wound of throat .....								1			1	
Total suicides .....		2	1					1	1	1	1	1
Order 5.—Wounds in late civil war.												
Injury .....												
Wounds .....								1			1	
Total wounds in late civil war .....								1			1	
Total violence .....	2	3	1	4	4	3	15	8	5	13	31	8
Total from all causes .....	127	140	115	134	149	115	494	434	360	79	457	287
<b>RECAPITULATION.</b>												
Zymotic:												
Miasmatic diseases .....	14	20	11	16	13	10	56	45	32	51	78	49
Enthetic diseases .....			1	2			2			4	5	4
Dietic diseases .....	1		2	3		1	2	6	5	1	8	7
Parasitic .....							1				1	
Total zymotic diseases .....	15	20	13	16	18	10	58	53	37	59	92	64
Constitutional:												
Diathetic .....	2	4	1	5	10	1	12	26	5	4	13	10
Tubercular .....	18	17	29	22	14	18	60	52	71	23	62	54
Total constitutional diseases .....	20	23	30	27	24	19	72	78	90	27	75	65

Local:	Nervous diseases	21	15	13	13	24	10	13	9	75	41	38	34	33	13	10	8	27	17	13	8	17	20	12	14	77	50	35	30		
	Circulatory organs	6	7	5	5	12	16	8	5	33	40	21	17	12	5	8	5	13	7	12	3	11	4	3	5	36	16	23	13		
	Respiratory organs	40	40	40	33	31	28	25	32	149	116	123	106	18	13	26	18	16	14	10	13	8	9	10	9	42	36	46	40		
	Digestive organs	11	8	4	7	8	10	4	10	29	30	14	22	7	9	7	3	10	5	4	5	21	16	11	8	38	30	22	16		
	Urinary organs	5	5	3	2	15	7	3	4	31	18	6	6	12	3	4	5	8	5	2	6	10	9	1	3	30	17	7	14		
	Generative organs	1	1	1	1	1	3	...	2	...	5	...	5	...	1	...	...	...	1	...	...	...	...	1	...	2	1	1	5		
	Osseous and locomotory	2	2	1	...	...	...	...	2	2	2	1	...	...	...	2	...	2	1	...	1	...	...	1	...	2	1	3	1		
	Integumentary	1	1	...	...	1	...	...	...	2	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	1	1	...		
	Total local diseases	84	79	66	61	92	74	53	62	321	253	203	190	82	44	59	39	76	51	41	38	67	58	38	42	255	153	138	119		
	Developmental:	Infants	3	6	3	4	7	6	5	4	18	18	19	17	4	9	8	8	10	3	5	3	6	5	9	1	20	17	22	12	
Women		8	8	4	4	3	3	...	2	...	12	...	7	...	...	...	4	...	10	...	3	...	7	...	...	...	17	...	...	7	
Old age		3	1	2	5	1	4	2	4	8	11	9	15	4	7	4	5	3	5	4	4	5	6	2	1	12	18	10	10		
Nutrition		...	...	...	...	2	1	...	...	2	1	...	...	2	1	...	...	...	...	...	...	...	2	...	...	2	3	...	...		
Total developmental diseases		6	15	5	13	10	14	7	10	28	42	28	39	10	17	12	17	13	18	9	10	11	20	11	2	34	55	32	29		
Violence:		Accidents and negligence	1	2	...	1	2	2	3	3	7	5	4	5	4	3	1	3	7	2	2	1	9	2	12	4	20	7	15	8	
		Judicial executions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		Homicides	1	1	1	...	...	1	1	...	5	2	2	...	...	...	3	...	1	...	...	1	...	...	...	1	2	...	3	1	1
		Suicides	...	...	...	...	2	1	...	...	2	1	...	...	1	1	1	1	4	...	...	3	...	...	...	...	8	1	1	1	
		Wounds received in late civil war	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	
	Total violence	2	3	1	1	4	4	4	3	15	8	0	5	5	4	5	4	13	2	2	1	13	2	12	5	31	8	19	10		
	SUMMARY.																														
	I. Zymotic diseases	15	20	13	9	16	18	10	12	58	53	37	36	20	17	6	10	13	25	11	7	59	41	39	47	92	83	56	64		
	II. Constitutional diseases	20	23	30	38	27	24	19	28	72	78	76	90	22	23	32	18	26	24	31	23	27	29	37	24	75	76	100	65		
	III. Local diseases	84	79	66	61	92	74	53	62	321	253	203	190	82	44	59	39	76	51	41	38	67	58	38	42	225	153	138	119		
IV. Developmental diseases	6	15	5	13	10	14	7	10	28	42	28	39	10	17	12	17	13	18	9	10	11	20	11	2	34	55	32	29			
V. Violence	2	3	1	1	4	4	4	3	15	8	0	5	5	4	5	4	13	2	2	1	13	2	12	5	31	8	19	10			
Grand total from all causes, by sex and color	127	140	115	122	149	134	93	115	404	434	350	360	139	105	114	88	141	120	94	79	177	150	137	120	457	375	345	287			
Total from all causes, by color	267	...	237	...	283	...	208	...	928	...	710	...	244	...	202	...	261	...	173	...	327	...	257	...	832	...	632	...			
Percentages to total mortality, by color	4.37	...	3.86	...	4.68	...	3.41	...	15.24	...	11.63	...	4.00	...	3.31	...	4.28	...	2.82	...	5.34	...	4.22	...	13.63	...	10.35	...			
Rate of death per 1,000 inhabitants, by color	1.52	...	2.16	...	1.62	...	2.53	...	5.29	...	8.34	...	1.38	...	2.37	...	1.49	...	2.03	...	1.86	...	3.03	...	4.75	...	7.43	...			
Grand total from all causes	504	...	...	...	491	...	...	...	1,038	...	...	...	446	...	...	...	...	434	...	...	584	...	...	...	...	1,464	...	...			
Total death rate per 1,000 inhabitants	1.93	...	...	...	1.89	...	...	...	6.28	...	...	...	1.71	...	...	...	...	1.67	...	...	2.23	...	...	...	...	5.61	...	...			



TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

Cause of death.	AGE OF DECEDENT.																Per cent of each cause to total mor- tality un- der 5 years of age.						
	Under 1 year.			1 to 2 years.			2 to 3 years.			3 to 4 years.			4 to 5 years.			Total under 5 years.							
	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.	W.		C.					
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.		F.					
CLASS V.—VIOLENCE.																							
Order 4.—Suicides.																							
Drowning																							
Poison																							
Pistol shot																							
Strangulation																							
Incised wound of throat																							
Total suicides																							
Order 5.—Wounds in late civil war.																							
Injury																							
Wounds																							
Total wounds in late civil war																							
Total violence	3	2	4	5	2		9	4		2	3		1	1		8	3	16	11	38	1.75		
Total from all causes	401	321	461	388	72	64	94	85	32	31	34	43	20	16	20	13	14	544	461	628	530	2,183	100.00
RECAPITULATION.																							
Zymotic:																							
Miasmatic diseases	107	87	103	100	28	26	30	19	17	17	16	9	10	14	7	11	10	173	154	163	138	628	28.76
Enthetic diseases	8	10	2	7														8	10	2	7	27	1.24
Dietic diseases	18	15	20	27	1	2	2	3										19	17	22	30	88	4.03
Parasitic				2	1													1			2	3	.13
Total zymotic diseases	133	112	125	136	30	28	32	22	17	17	16	9	10	14	7	11	10	201	181	187	177	746	34.17
Constitutional:																							
Diathetic				1														1	1	1	1	5	.23
Tubercular	44	34	61	42	6	5	11	17	2	4	5	6	3			1	2	57	45	87	75	264	12.09
Total constitutional diseases	44	34	62	42	6	6	11	18	2	4	5	6	3			3	2	58	46	88	77	269	12.32

## Local:

cal:																										
Nervous diseases	51	38	60	46	10	12	8	3	1	4	2	4	2	3	3	1	2	4	1	1	66	61	73	55	255	11.68
Circulatory organs	3	2									1		1							3	3	1		7	32	
Respiratory organs	60	35	94	75	12	12	26	30	9	5	8	18	3	4	5	5			2	3	84	56	135	131	406	18.59
Digestive organs	28	29	25	27	11	6	7	8	3	1	2	3	2	3	1	1					44	40	35	39	158	7.23
Urinary organs		1	2									1							1			3	3	1	7	33
Generative organs																										
Osseous and locomotory																				1				1		.05
Integumentary																				1				1		.05

## Total local diseases

Total local diseases	142	105	181	148	33	30	41	41	13	10	13	26	7	11	9	7	2	7	3	6	197	163	247	228	835	38.24
----------------------	-----	-----	-----	-----	----	----	----	----	----	----	----	----	---	----	---	---	---	---	---	---	-----	-----	-----	-----	-----	-------

## Developmental:

Infants	79	68	89	57	1		1														80	68	90	57	295	13.52
Women																										
Old age																										
Nutrition																										

## Total developmental disease

Total developmental disease	79	68	89	57	1		1														80	68	90	57	295	13.52
-----------------------------	----	----	----	----	---	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	----	----	----	----	-----	-------

## Violence:

Accidents and negligence	1	1	4	4		1	1		2	3		2			1	1		4	2	8	7	21	.98
Judicial executions																							
Homicides	2	1		1	2		8	3										4	1	8	4	17	.77
Suicides																							
Wounds received in late civil war																							

## Total violence

Total violence	3	2	4	5	2		9	4				2	3		2			1	1		8	3	16	11	38	1.73
----------------	---	---	---	---	---	--	---	---	--	--	--	---	---	--	---	--	--	---	---	--	---	---	----	----	----	------

## SUMMARY.

I. Zymotic diseases	133	112	125	136	30	28	32	22	17	17	16	9	10	14	10	7	11	10	4	3	201	181	187	177	746	34.17
II. Constitutional diseases	44	34	62	42	6	6	11	18	2	4	5	6	3		5	6	3	2	5	5	58	46	88	77	269	12.32
III. Local diseases	142	105	181	148	33	30	41	41	13	10	13	26	7	11	9	7	2	7	3	6	197	163	247	228	835	38.24
IV. Developmental diseases	79	68	89	57	1		1														80	68	90	57	295	13.52
V. Violence	3	2	4	5	2		9	4				2	3		2			1	1		8	3	16	11	38	1.73

## Grand total from all causes, by sex and color

Grand total from all causes, by sex and color	401	321	461	388	72	64	94	85	32	31	34	43	23	25	26	20	16	20	13	14	544	461	628	550	2,183	100.00
---	-----	-----	-----	-----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-------	--------

## Total from all causes, by color

Total from all causes, by color	722	849	136				179		63		77		48		48		36		27		1,005		1,178			
---------------------------------	-----	-----	-----	--	--	--	-----	--	----	--	----	--	----	--	----	--	----	--	----	--	-------	--	-------	--	--	--

## Percentages to total mortality, by color

Percentages to total mortality, by color	11.84	13.90	2.22				2.92		1.01		1.25		.78		.75		.59		.43		16.46		19.30			
--	-------	-------	------	--	--	--	------	--	------	--	------	--	-----	--	-----	--	-----	--	-----	--	-------	--	-------	--	--	--

## Rate of death per 1,000 inhabitants, by color

Rate of death per 1,000 inhabitants, by color	4.60	9.98	.77				2.10		.36		.90		.26		.54		.20		.32		5.75		13.86			
---	------	------	-----	--	--	--	------	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	------	--	-------	--	--	--

## Grand total from all causes

Grand total from all causes	1,571		315						140					94				63			1,005		1,178		2,183	
-----------------------------	-------	--	-----	--	--	--	--	--	-----	--	--	--	--	----	--	--	--	----	--	--	-------	--	-------	--	-------	--

## Total death rate per 1,000 inhabitants

Total death rate per 1,000 inhabitants	6.04		1.21						.53					.36				.24			3.87		4.51		8.40	
--	------	--	------	--	--	--	--	--	-----	--	--	--	--	-----	--	--	--	-----	--	--	------	--	------	--	------	--

TABLE I.—Showing total number of deaths occurring in the District of Columbia, etc.—Continued.

[illegible]



Local:	Nervous diseases.....	6	2	5	2	7	5	3	7	8	8	3	24	8	2	8	23	12	11	10	47	21	18	47	24	11	14
	Circulatory organs.....	7	6	9	6	5	11	13	11	3	3	4	13	11	12	12	20	17	16	12	13	11	19	26	19	14	
	Respiratory organs.....	3	3	2	2	2	8	6	10	6	6	10	13	17	3	6	17	9	6	7	20	9	8	26	30	13	
	Digestive organs.....	1	1	1	1	4	4	2	5	2	2	11	6	13	7	6	17	8	4	4	30	8	6	17	10	2	
	Urinary organs.....	1	1	1	1	1	1	3	1	1	1	1	1	3	1	1	3	3	1	6	1	4	2	2	2	3	
	Generative organs.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Osseous and locomotory.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Integumentary.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Total local diseases.....	17	12	17	10	18	36	22	25	37	47	33	38	78	64	37	49	93	62	58	170	87	71	151	102	45	39
	Developmental:																										
Violence:	Infants.....																										
	Women.....																										
	Old age.....																										
	Nutrition.....																										
	Total developmental diseases.....																										
	Accidents and negligence.....	6	1	3	4	12		9	6	11	1	9	1	8	3	4	4	8	3	6	7	3	2	7	3	2	
	Judicial executions.....																										
	Homicides.....																										
	Suicides.....																										
	Wounds received in late civil war.....																										
Total violence.....	6	1	3	4	13		11	6	18	4	11	2	13	5	4	4	12	5	8	12	3	3	2	11	4	2	
SUMMARY.																											
I. Zymotic diseases.....	47	41	21	17	18	29	15	27	47	25	16	14	17	14	14	7	9	7	9	10	16	11	4	21	11	13	7
		4	16	13	10	23	35	44	45	46	63	62	53	49	38	46	45	56	31	32	48	26	21	17	26	29	17
	17	12	17	10	18	36	22	25	37	47	33	38	78	64	37	49	93	62	58	170	87	71	151	102	45	39	
	6	1	3	4	13		11	6	18	4	11	2	13	5	4	4	12	5	8	12	3	3	2	11	4	2	
Grand total from all causes, by sex and color.....																											
Total from all causes, by color.....																											
Percentage to total mortality, by color.....																											
Rate of death per 1,000 inhabitants, by color.....																											
Grand total from all causes.....																											
Total death-rate per 1,000 inhabitants.....																											



Local:	36	22	9	10	10	19	3	3	1	2	105	41	40	34	138	87	95	68
Nervous diseases	28	27	5	7	3	2	3	3	3	27	66	36	43	27	35	19	13	12
Circulatory organs	29	31	7	5	11	16	6	5	3	4	87	54	59	24	128	95	168	161
Respiratory organs	12	16	2	1	3	4	1	1	1	13	57	47	18	13	73	65	47	57
Digestive organs	20	8	2	3	6	1	1	1	1	17	67	25	14	17	23	12	8	11
Urinary organs										10	8	1	1			4		5
Generative organs											3				3	1	3	2
Osseous and locomotory	2	2	1	2	1						2				1	2		1
Integumentary																		
Total local diseases	125	106	26	28	36	43	11	14	9	6	387	211	176	125	401	285	334	317
Developmental:																		
Infants																		
Women																		
Old age	20	26	19	11	10	21	4	10	4	8	17	6	11	7	3	2	4	5
Nutrition	2	2				2					3	2			1	2		
Total developmental diseases	22	28	19	11	10	23	4	10	4	8	20	57	11	19	84	77	94	70
Violence:																		
Accidents and negligence	4	3	1		1	4			1		25	4	12	5	37	8	31	17
Judicial executions											3	1			9	1	14	4
Homicides											11	5	1		2	1		1
Suicides	2										4							
Wounds received in late civil war					1													
Total violence	6	3	1		2	4			1		43	10	13	5	48	10	45	22
SUMMARY.																		
I. Zymotic diseases	13	11	4	5	6	5	3		2	1	69	43	39	21	314	271	247	234
II. Constitutional diseases	17	14	9	4	3	6	2	3			99	110	96	91	175	135	206	182
III. Local diseases	125	106	26	28	36	43	11	14	9	6	387	211	176	125	401	285	334	317
IV. Developmental diseases	22	28	19	11	10	23	4	10	4	8	20	57	11	19	84	77	94	70
V. Violence	6	3	1		2	4			1		43	10	13	5	48	10	45	22
Grand total from all causes, by sex and color	183	162	59	48	57	81	20	27	5	18	618	431	335	261	1,022	778	926	825
Total from all causes, by color	345		107		138	47			23		1,049		596		1,800		1,751	
Percentages to total mortality, by color	5.65		1.75		2.27	.77			.38		17.22		9.77		29.51		28.71	
Rate of death per 1,000 inhabitants, by color	1.97		1.26		.78	.55			.13		6.00		7.02		10.29		20.60	
Grand total from all causes	452					185			53		1,645					3,551		
Total death-rate per 1,000 inhabitants	1.73					.70			.21		6.32					13.66		





Local:	30	58	14	27	99	86	88	66	112	74	61	63	62	32
Nervous diseases.....	20	45	15	28	17	24	13	13	60	50	58	54	44	26
Circulatory organs.....	46	74	19	41	124	78	150	157	83	94	96	69	54	51
Respiratory organs.....	22	30	4	11	58	64	39	51	48	54	30	30	46	24
Digestive organs.....	13	25	7	7	18	24	4	7	53	25	25	28	32	13
Urinary organs.....		1		4		3		3		9	1	16		1
Generative organs.....	3	2	1	2	3		3	1	2	3	2		4	
Oseous and locomotory.....					1	2	1	1						
Integumentary.....														
Total local diseases.....	134	235	61	120	320	275	298	299	360	309	273	263	242	147
Developmental:														
Infants.....					80	68	90	57		24				7
Women.....	1					21		4		36	28	16	15	19
Old age.....	17	54	18	30	3	10	5	1	19			41		5
Nutrition.....	2	3	1		3		1		3	2				
Total developmental diseases.....	19	58	19	30	86	99	90	62	22	62	28	57	15	31
Violence:														
Accidents and negligence.....	6	12	1	2	29	6	21	15	29	12	23	9	10	6
Judicial executions.....														
Homicides.....	1				8	3	12	4	2		2		2	
Suicides.....	4				2				6	4	1	1	9	2
Wounds received in late civil war.....									3				1	
Total violence.....	10	13	1	2	39	9	33	19	40	16	26	10	22	8
SUMMARY.														
I. Zymotic diseases.....	12	26	9	14	257	255	226	208	94	52	69	61	44	33
II. Constitutional diseases.....	32	54	18	35	129	132	157	150	111	118	163	158	66	49
III. Local diseases.....	134	235	61	120	320	275	298	299	360	309	273	263	242	147
IV. Developmental diseases.....	19	58	19	30	86	99	96	62	22	62	28	57	15	31
V. Violence.....	10	13	1	2	39	9	33	19	40	16	26	10	22	8
Grand total from all causes, by sex and color.....	207	386	108	201	831	770	810	738	627	557	559	549	389	268
Total from all causes, by color.....	593		209		1,601,		1,548		1,184		1,108		657	
Percentages to total mortality, by color.....	9.72		5.07		26.20		25.40		19.41		18.17		10.76	
Rate of death per 1,000 inhabitants, by color.....	3.38		3.64		9.16		18.21		6.75		13.03		3.76	
Grand total from all causes.....	902				3,149					2,292			657	
Total death-rate per 1,000 inhabitants.....	3.46				12.11					8.81			2.52	

TABLE II.—Location of deaths, year ended June 30, 1892.

Diseases.	West Washing- ton.				Washington City.											
	First division—west of Thirty- second street.		Second division—east of Thirty- second street.		Third division—south of K street and Vermont avenue, and west of Fifteenth street.		Fourth division—north of K street and Vermont avenue and south of Florida avenue NW.		Fifth division—north of Massa- chusetts avenue, east of Vermont avenue, west of First street NW., and south of Florida ave- nue.		Sixth division—south of Massa- chusetts avenue to B street N. and from Fifteenth street W. to First street W.		Seventh division—south of B street N., and west of Delaware avenue SW. to Potomac River.		Eighth division—east of Delaware avenue SW. and south of E street SE.	
W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	
Consumption .....	8	3	13	12	24	14	29	57	34	51	27	14	32	46	25	12
Pneumonia .....	4	6	7	11	17	19	29	29	26	26	28	11	24	45	14	28
Cholera infantum .....	10	1	2	3	5	5	6	14	5	13	8	4	13	19	7	15
Scarlet fever .....	2	2	2				3	1	2						2	
Diphtheria .....	16		2	4	9	1	24	13	21	2	12	2	9	11	7	4
Typhoid fever .....	4		2	2	2	5	8	7	9	6	8	2	11	11	10	3
Typho-malarial fever .....					1				2	2	1		2	1	1	1
Malarial fevers .....			2		2	3	3	4	3	4	3	1		2	4	3
Diarrheal diseases (except cholera infantum) .....	6	1	3	4	6	6	9	20	18	16	10	1	20	8	6	5
All other diseases .....	89	32	78	32	103	100	180	193	244	215	220	63	211	170	135	77
Total .....	139	45	111	68	175	153	291	338	364	335	317	98	322	313	211	143
Percentage to total deaths	4.04	1.69	3.23	2.56	5.09	5.76	8.40	12.74	10.57	12.61	9.20	3.36	9.30	11.79	6.07	5.62

Diseases.	Washington City.				County.				Hospitals and public institutions, and unknown.		Total by color.		Grand total.
	Ninth division—north of E street SE., south of Maryland avenue NE., and east of First street E.		Tenth division—east of First street E., north of Maryland avenue and south of Florida avenue NE.		Eleventh division—west of Ana- costa River and north of Florida avenue.		Twelfth division—east of Anacos- tia and Potomac rivers to Dis- trict line.						
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.	
Consumption.....	26	16	31	20	13	27	5	10	75	90	342	372	714
Pneumonia.....	20	20	27	17	25	23	11	10	24	26	256	271	527
Cholera infantum.....	5	6	12	9	14	23	7	5	6	6	100	123	223
Scarlet fever.....	3		3		4		1		1		23	3	26
Diphtheria.....	10	2	10	1	2	8	3		3	6	128	54	182
Typhoid fever.....	10	3	12	9	5	7	4	2	22	19	107	76	183
Typho-malarial fever.....	1	1	2	2		1	1		3	1	14	9	23
Malarial fevers.....	2	9	5	1	3	1	2	1	1	3	30	32	62
Diarrheal diseases (except cholera infantum).....	10	15	23	10	12	3	5	2	22	12	150	103	253
All other diseases.....	167	98	219	94	132	126	48	51	460	362	2,292	1,813	3,905
Total.....	254	170	344	163	210	219	87	81	617	525	3,442	2,656	6,098
Percentage to total deaths.....	7.38	6.41	9.93	6.14	6.04	8.26	2.51	3.06	18.24	20.00	100.00	100.00	.....



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 743

TABLE III.—Deaths under one year of age, arranged monthly, for the year ending June 30, 1892.

	1 day and under.	1 day to 1 week.	1 week to 1 month.	1 to 2 months.	2 to 3 months.	3 to 4 months.	4 to 5 months.	5 to 6 months.	6 to 7 months.	7 to 8 months.	8 to 9 months.	9 to 10 months.	10 to 11 months.	11 to 12 months.	Total.	Total by color.
July, 1891:																
White males.....	2	2	3	8	6	9	6	4	2	3	3	2	2	2	54	101
White females.....	2	3	3	3	6	4	7	5	5	1	1	1	1	1	47	
Colored males.....	3	2	4	2	6	9	4	8	4	4	3	0	3	8	57	115
Colored females.....	3	7	6	4	2	4	6	4	4	4	8	1	1	4	58	
Total.....	12	14	16	21	20	26	23	21	15	12	15	4	7	10	216	216
August, 1891:																
White males.....	5	4	4	1	3	2	2	0	2	6	2	4	0	2	37	67
White females.....	1	3	2	3	0	2	1	3	3	7	0	3	0	2	30	
Colored males.....	4	8	4	3	5	1	6	0	2	1	2	1	1	3	41	77
Colored females.....	3	2	1	4	3	2	5	0	4	4	3	0	3	2	36	
Total.....	13	17	11	11	11	7	14	3	11	18	7	8	4	9	144	144
September, 1891:																
White males.....	4	2	3	1	2	1	2	2	0	2	3	3	3	0	28	55
White females.....	4	2	2	6	2	2	0	2	1	2	0	1	2	1	27	
Colored males.....	4	4	6	3	4	3	0	2	1	1	2	1	2	1	34	66
Colored females.....	2	3	5	3	1	4	3	0	1	2	1	2	1	4	32	
Total.....	14	11	16	13	9	10	5	6	3	7	6	7	8	6	121	121
October, 1891:																
White males.....	3	3	5	3	2	3	3	0	1	1	0	1	1	0	26	54
White females.....	5	3	5	7	1	1	1	0	1	1	1	0	1	1	28	
Colored males.....	4	5	3	2	6	5	3	1	2	1	1	0	0	0	33	61
Colored females.....	6	2	3	1	2	1	3	0	2	3	1	2	1	1	28	
Total.....	18	13	16	13	11	10	16	1	6	6	3	3	3	2	115	115
November, 1891:																
White males.....	4	2	2	3	2	2	0	1	1	0	0	0	0	0	17	29
White females.....	3	0	3	0	1	2	0	0	1	0	0	0	1	1	12	
Colored males.....	10	3	3	2	2	4	2	1	0	0	0	2	0	2	31	43
Colored females.....	3	0	3	0	1	2	0	0	1	0	0	0	1	1	12	
Total.....	20	5	11	5	6	10	2	2	3	0	0	2	2	4	72	72
December, 1891:																
White males.....	4	10	0	2	2	7	2	0	2	1	0	2	1	0	33	51
White females.....	2	3	3	2	0	1	0	2	0	2	1	0	0	2	18	
Colored males.....	5	2	6	1	3	7	3	0	1	0	1	0	0	1	30	60
Colored females.....	3	6	2	2	1	2	8	4	1	2	2	2	0	0	20	
Total.....	14	21	11	7	6	17	8	6	4	5	4	4	1	3	111	111
January, 1892:																
White males.....	8	4	4	3	9	2	1	1	3	1	5	2	1	1	45	70
White females.....	2	1	0	2	3	1	2	2	5	2	3	1	1	0	25	
Colored males.....	8	2	5	8	6	3	4	4	2	5	1	0	3	3	54	93
Colored females.....	7	6	4	6	6	3	4	1	1	1	0	0	0	0	39	
Total.....	25	13	13	19	24	9	11	8	11	9	9	3	5	4	163	163
February, 1892:																
White males.....	3	1	3	4	3	0	2	1	4	1	2	0	0	0	24	43
White females.....	3	3	1	3	0	1	1	0	1	4	1	1	0	0	19	
Colored males.....	1	4	9	2	2	2	1	5	3	1	0	1	2	2	35	66
Colored females.....	3	2	1	3	2	1	3	4	2	3	1	2	1	3	31	
Total.....	10	10	14	12	7	4	7	10	10	9	4	4	3	5	109	109
March, 1892:																
White males.....	3	3	3	2	3	1	1	0	5	0	0	3	0	1	25	45
White females.....	3	5	2	2	1	1	0	2	1	2	1	0	0	0	20	
Colored males.....	3	3	2	0	2	2	2	1	3	3	1	0	1	0	23	47
Colored females.....	3	0	2	3	1	3	3	2	3	1	1	1	1	0	24	
Total.....	12	11	9	7	7	7	6	5	12	6	3	4	2	1	92	92

TABLE III.—Deaths under one year of age, etc.—Continued.

	1 day and under.	1 day to 1 week.	1 week to 1 month.	1 to 2 months.	2 to 3 months.	3 to 4 months.	4 to 5 months.	5 to 6 months.	6 to 7 months.	7 to 8 months.	8 to 9 months.	9 to 10 months.	10 to 11 months.	11 to 12 months.	Total.	Total by color.
April, 1892:																
White males .....	2	3	1	3	1	1	0	0	0	1	2	0	2	1	17	35
females .....	3	5	3	0	0	2	1	1	1	2	0	0	0	0	18	
Colored males .....	5	8	3	1	3	0	2	3	3	3	1	2	1	0	35	58
females .....	4	3	5	2	2	3	2	0	0	0	2	0	0	0	23	
Total .....	14	19	12	6	6	6	5	4	4	6	5	2	3	1	93	93
May, 1892:																
White males .....	3	6	2	5	2	0	2	1	0	2	0	0	2	0	25	45
females .....	0	4	6	1	0	3	1	0	1	0	2	0	0	2	20	
Colored males .....	3	3	6	3	2	1	2	0	1	1	3	2	1	0	28	41
females .....	0	3	2	2	1	0	0	2	0	1	1	0	0	1	13	
Total .....	6	16	16	11	5	4	5	3	2	4	6	2	3	3	86	86
June, 1892:																
White males .....	4	4	2	7	8	11	7	7	6	4	5	1	5	0	71	127
females .....	2	2	3	4	6	1	5	6	3	4	5	4	7	4	56	
Colored males .....	7	1	6	2	0	8	8	6	6	4	5	1	0	3	66	122
females .....	2	2	3	4	6	1	5	6	3	4	5	4	7	4	56	
Total .....	15	9	14	17	29	21	25	25	18	16	20	10	19	11	249	249

RECAPITULATION.

Age.	Grand total.	Per cent to total mortality under 1 year.	Total white males.	Per cent to total mortality under 1 year.	Total white females.	Per cent to total mortality under 1 year.	Total colored males.	Per cent to total mortality under 1 year.	Total colored females.	Per cent to total mortality under 1 year.
1 day and under.....	173	11.01	45	11.20	30	9.37	59	12.64	39	10.21
1 day to 1 week .....	159	10.21	44	10.98	34	10.62	45	9.64	36	9.43
1 week to 1 month .....	159	10.21	32	7.98	33	10.31	57	12.20	37	9.69
1 month to 2 months .....	142	9.02	42	10.48	37	11.55	29	6.21	34	8.91
2 months to 3 months .....	141	8.96	43	10.67	20	6.25	50	10.70	28	7.33
3 months to 4 months .....	131	8.31	39	9.66	21	6.55	45	9.63	26	6.81
4 months to 5 months .....	121	7.70	28	6.99	19	5.94	37	7.92	37	9.69
5 months to 6 months .....	94	5.98	17	4.19	23	7.19	31	6.65	23	6.02
6 months to 7 months .....	99	6.28	26	6.48	23	7.19	28	6.00	22	5.76
7 months to 8 months .....	98	6.22	22	5.49	27	8.44	24	5.14	25	6.54
8 months to 9 months .....	82	5.20	22	5.49	15	4.70	20	4.28	25	6.54
9 months to 10 months .....	53	3.35	18	4.49	11	3.44	10	2.15	14	3.66
10 months to 11 months .....	60	3.80	17	4.20	13	4.07	14	2.99	16	4.18
11 months to 12 months .....	59	3.75	7	1.70	14	4.38	18	3.85	20	5.23
Total .....	1,571	100.00	402	100.00	320	100.00	467	100.00	382	100.00
Total by color .....						722				849
Percentage to total mortality under 1 year old, by color .....						45.96				54.04

TABLE IV.—DEATHS.—Number of deaths of children under 5 years of age, from the principal diseases of children, year ending June 30, 1892.

Diseases.	White.		Colored.	
	Deaths.	Percentage to total mortality of whites under 5 years of age.	Deaths.	Percentage to total mortality of colored under 5 years of age.
Measles.....	3	.30	1	.08
Croup.....	17	1.68	12	1.02
Diphtheria.....	51	5.07	22	1.87
Scarlet fever.....	13	1.30	2	.17
Typho-malarial fever.....	1	.09		
Diarrheal diseases.....	197	19.60	192	16.31
Whooping cough.....	26	2.59	48	4.09
Inanition.....	35	3.48	35	2.96
Scrofula, tuberculosis, marasmus, hydrocephalus, and tubercular meningitis.....	94	9.35	118	10.02
Phthisis pulmonalis.....	8	.80	44	3.74
Acute diseases of the brain.....	63	6.26	18	1.53
Convulsions.....	49	4.58	82	6.97
Trismus nascentium.....	13	1.30	27	2.29
Bronchitis.....	46	4.58	97	8.24
Congestion of lungs.....	28	2.79	23	1.94
Pneumonia.....	57	5.67	143	12.14
Diseases of the digestive organs.....	84	8.36	74	6.29
Developmental diseases of children.....	148	14.73	147	12.46
Accidents and negligence.....	6	.60	15	1.27
All others.....	66	6.57	78	6.61
Total.....	1,005	100.00	1,178	100.00
Percentage to total mortality by color.....		46.04		53.96
Annual death rate by color.....		5.74		13.86

TABLE V.—Number dying 70 years of age and over during the year ending June 30, 1892.

Age.	White.		Colored.		Total.	Age.	White.		Colored.		Total.
	Male.	Female.	Male.	Female.			Male.	Female.	Male.	Female.	
70 years.....	27	30	15	14	86	87 years.....	5	7		1	13
71 years.....	21	17	3	2	43	88 years.....	5	6	1	2	14
72 years.....	31	22	7	9	69	89 years.....	2	5		3	10
73 years.....	15	14	2	2	33	90 years.....	1	2	4	4	11
74 years.....	22	10	7	3	42	91 years.....	1	5		2	8
75 years.....	19	21	11	9	60	92 years.....	1	5	1	1	8
76 years.....	14	17	3	1	35	93 years.....					
77 years.....	9	11	2	3	25	94 years.....				2	2
78 years.....	13	12	4	2	31	95 years.....		1			1
79 years.....	10	7	3	3	23	96 years.....		2	1	2	5
80 years.....	11	15	9	14	49	97 years.....		1	1	1	3
81 years.....	9	8	1		18	98 years.....					
82 years.....	8	4	2		14	99 years.....	1				1
83 years.....	7	17	1	2	27	100 years.....	2		2	6	10
84 years.....	4	11	2	1	18						
85 years.....	3	4	3	5	15	Total.....	245	261	86	95	687
86 years.....	4	7	1	1	13						



TABLE VI.—Number and average ages, in years, of decedents dying from eighteen different diseases, and from suicide, during the year ending June 30, 1892.

Disease.	White.				Colored.			
	Male.		Female.		Male.		Female.	
	Total deaths.	Years.	Total deaths.	Years.	Total deaths.	Years.	Total deaths.	Years.
Consumption .....	185	40	157	36	194	32	178	27
Typhoid fever .....	70	28	37	25	39	26	37	23
Apoplexy .....	66	60	38	62	10	57	26	62
Insanity .....	31	54	11	51	4	53	5	55
Softening of the brain .....	10	55	7	64	7	62	2	55
Paralysis .....	28	62	31	67	18	55	17	60
Cancer .....	35	56	52	51	6	52	18	49
Epilepsy .....	13	48	2	30	5	48	2	35
Diseases of the heart .....	101	51	95	50	66	50	65	46
Bright's disease .....	23	47	20	45	14	50	12	51
Rheumatism .....	11	51	13	43	10	58	17	45
Aneurism .....	7	55	2	36	4	40		
Angina pectoris .....	10	62	3	57	1	60	2	45
Gastritis .....	18	43	23	45	4	29	8	41
Cirrhosis of liver .....	18	52	3	45	1	50	1	35
Dropsy .....	2	47	4	61	11	51	6	46
Diabetes .....	1	60	7	47			2	45
Hernia .....	4	54			5	41		
Suicides .....	17	48	6	42	1	52	1	23

TABLE VII.—Number of deaths occurring in hospitals and other public institutions during the year ending June 30, 1892.

Hospitals, etc.	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Barnes's Hospital, Soldiers' Home .....	41	3	1		45
Children's Hospital .....	3	3	24	9	39
Columbia Hospital .....	5	11	8	17	41
Colored Foundling Hospital, Trumbull street .....			18	12	30
Emergency Hospital .....	9	1	3	1	14
Freedmen's Hospital .....	23	7	160	105	295
Garfield Memorial Hospital .....	28	9	6	1	44
Government Hospital for the Insane .....	105	21	18	11	155
Georgetown College .....	5				5
Home for the Aged, Little Sisters of the Poor .....	10	14	3	5	32
Homeopathic Hospital .....	6	6	1	1	14
Home for Colored Orphans and Women .....			2	2	4
Louise Home .....		1			1
Navy Hospital .....	2				2
Potomac River and Canal .....	11	2	11	1	25
Providence Hospital .....	97	39	4	9	149
Police Stations .....	7		8	4	19
St. Ann's Infant Asylum .....	26	21	11	15	73
Washington Asylum Hospital .....	9	11	39	13	72
Washington Orphan Asylum .....		1			1
Washington Foundling Hospital, Fifteenth street .....	37	29			66
Hammond's Sanitarium .....	2	1			3
Methodist Church Home .....		2			2
Epiphany Church Home .....		2			2
House of Good Shepherd .....		1			1
Home for Incurables .....		1			1
Industrial Home School .....					
Reform School .....	1				1
Railway stations .....	1				1
Public grounds .....	1				1
Smallpox Hospital .....	2		1		3
Total .....	431	186	318	207	1,142

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 747

TABLE VIII.—Deaths and average ages, year ending June 30, 1892.

## WHITE MALES.

Months.	All ages.				5 years and over.				20 years and over.				40 years and over.			
	Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.		
		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.
1891.																
July .....	164	26	0	19	92	45	10	9	79	51	6	20	58	60	0	0
August .....	149	32	6	19	99	48	7	1	90	52	8	3	67	60	8	7
September .....	122	28	7	6	80	43	0	24	65	50	5	0	41	62	3	7
October .....	159	32	0	6	117	43	1	22	94	50	8	26	66	60	0	0
November .....	140	33	5	3	110	42	2	7	98	46	3	13	60	57	4	6
December .....	162	36	11	23	117	50	7	0	109	53	8	0	79	62	8	0
1892.																
January .....	218	36	11	0	161	40	9	0	152	51	11	25	123	62	3	28
February .....	127	38	9	10	96	51	1	10	87	55	0	4	69	60	0	00
March .....	149	38	3	0	110	51	4	7	103	55	0	13	79	60	0	9
April .....	139	42	2	10	109	53	5	0	104	55	4	12	82	62	3	11
May .....	141	40	10	21	113	50	11	4	103	54	9	16	81	61	11	11
June .....	177	27	11	2	98	50	0	3	91	51	10	24	61	62	9	19
Total and mean. . .	1,847	34	6	19	1,302	48	4	0	1,175	52	5	13	866	61	0	10

## WHITE FEMALES.

1891.																
July .....	126	27	1	26	68	49	9	10	59	55	6	17	43	65	6	21
August .....	132	29	4	28	89	43	1	22	73	50	1	25	45	62	11	14
September .....	127	28	9	17	82	44	0	0	72	48	4	25	41	63	9	28
October .....	137	31	2	0	98	43	2	6	78	50	4	5	53	61	3	27
November .....	125	37	0	28	98	46	9	27	80	55	1	16	59	61	9	0
December .....	139	39	3	27	112	48	6	22	99	53	4	2	68	64	4	17
1892.																
January .....	160	42	3	28	124	54	4	15	116	57	3	22	93	64	0	2
February .....	140	35	9	9	108	46	1	0	92	51	7	9	58	64	3	3
March .....	134	41	9	6	106	52	7	10	98	55	10	5	74	64	2	27
April .....	105	38	5	17	79	50	9	22	72	54	4	10	51	64	5	19
May .....	120	35	1	15	90	46	5	10	77	52	2	1	47	64	8	28
June .....	150	27	8	14	80	51	3	18	74	54	5	10	54	63	2	0
Total and mean. . .	1,595	34	5	25	1,134	48	1	3	990	53	2	19	686	63	9	6

## COLORED MALES.

1891.																
July .....	133	17	5	4	58	39	0	0	47	45	3	3	26	58	4	10
August .....	128	20	4	8	63	40	4	10	49	50	9	1	29	61	10	23
September .....	117	20	0	0	64	35	4	2	43	47	1	2	31	54	9	20
October .....	95	22	2	4	52	40	0	0	41	46	1	22	29	53	4	4
November .....	92	22	4	14	52	39	0	24	38	48	4	23	24	59	6	22
December .....	109	25	7	0	63	43	7	16	56	44	2	16	44	60	0	0
1892.																
January .....	142	26	1	18	78	47	1	20	67	53	0	21	48	62	4	22
February .....	115	25	0	0	65	43	9	0	55	49	4	0	35	62	8	14
March .....	93	30	0	0	62	44	3	9	56	47	5	17	38	57	2	25
April .....	114	24	7	26	69	40	3	9	55	47	0	26	34	60	0	0
May .....	94	23	8	20	55	40	0	0	42	50	0	0	20	56	13	25
June .....	137	17	7	17	59	40	2	0	51	44	6	0	28	57	2	4
Total and mean. . .	1,369	22	11	2	740	41	0	0	600	48	1	6	382	58	8	19

TABLE VIII.—Deaths and average ages, year ending June 30, 1892—Continued.

## COLORED FEMALES.

Months.	All ages.								5 years and over.				20 years and over.				40 years and over.			
	Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.			Total deaths.	Average ages.						
		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.		Years.	Months.	Days.				
1891.																				
July .....	127	20	1	3	61	41	4	4	49	48	4	27	31	60	0	0				
August .....	99	19	4	11	52	36	2	4	38	44	3	23	19	59	0	0				
September .....	111	22	0	0	59	40	3	22	45	48	9	2	29	60	0	12				
October .....	104	19	5	3	60	33	0	0	43	41	1	20	22	53	6	0				
November .....	92	27	7	27	63	40	0	0	53	45	3	18	28	57	3	28				
December .....	107	28	7	28	67	45	4	16	59	49	9	29	42	57	5	21				
1892.																				
January .....	123	28	4	17	70	49	4	8	58	56	6	20	43	63	4	5				
February .....	122	25	0	0	74	40	6	24	62	46	2	10	31	64	4	8				
March .....	115	25	2	9	71	40	0	20	54	48	4	13	36	60	0	0				
April .....	88	26	0	0	57	40	0	0	45	47	2	18	30	57	1	18				
May .....	79	27	9	27	55	40	0	0	42	47	0	9	23	61	6	24				
June .....	120	16	5	9	48	40	0	28	42	43	6	25	23	56	0	16				
Total and mean .....	1,287	23	10	4	737	40	0	5	590	48	0	20	357	59	1	23				

## RECAPITULATION.

White .....	{ Male.....	1,847	34	6	19	1,302	48	4	0	1,175	52	5	13	866	61	0	10
	{ Female ..	1,595	34	5	25	1,134	48	1	3	990	53	2	19	686	63	9	6
Total and mean..		3,442	34	6	7	2,436	48	2	16	2,165	52	10	1	1,552	62	4	23
Colored .....	{ Male.....	1,369	22	11	2	740	41	0	0	630	48	1	6	382	58	8	19
	{ Female ..	1,287	23	10	4	737	40	6	5	590	48	0	20	357	59	1	23
Total and mean..		2,656	23	4	23	1,477	40	9	2	1,190	48	0	28	739	58	11	6
White .....		3,442	34	6	7	2,436	48	2	16	2,165	52	10	1	1,552	62	4	23
Colored .....		2,656	23	4	23	1,477	40	9	2	1,190	48	0	28	739	58	11	6
Grand total.....		6,098	28	11	15	3,913	44	5	24	3,355	50	5	14	2,291	60	7	29



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 749

TABLE IX.—Cemeteries and number of decedents buried in each, including those transported out of the District of Columbia for interment, for year ending June 30, 1892.

Cemeteries.	White.	Colored.	Total.
Adas Israel.....	8	15	23
Baptist of Reno.....	4	1	5
Carroll Chapel.....		6	6
Christian Cemetery, of Tennally.....	528	1	529
Congressional Cemetery.....	1	1	2
Deanewood.....	345		345
Glenwood.....	81	530	611
Graceland.....	2	637	639
Harmony.....		16	16
Hillsdale.....	139	21	160
Holyrood.....	82	19	101
Hospital cemetery at Government Asylum for the Insane.....		8	8
Jones' Chapel.....		10	10
Macedonia.....	6		6
Museum, Army Medical.....		5	5
Museum, Columbian Hospital.....	34		34
Methodist, of Tennally.....	742	219	961
Mount Olivet.....		210	210
Mount Zion.....		88	88
Moore's, of Good Hope.....	63	19	82
National, of Arlington.....	51	3	54
National, of Soldiers' Home.....	227		227
Oak Hill.....	548	189	737
Outside of District of Columbia.....		5	5
Oxon Hill.....	1	237	238
Paynes, of Bennings.....	100	406	506
Potter's Field.....	126		126
Prospect Hill.....	2		2
Presbyterian, of Tennally.....	258		258
Rock Creek.....		10	10
Smith's, of Anacostia.....	57		57
St. Mary's.....	5		5
University cemetery, of Georgetown.....	28		28
Washington Hebrew, of Oxon Hill.....	4		4
Russian Hebrew, of Oxon Hill.....			
Total.....	3,442	2,656	6,098

TABLE X.—Daily mortality, classified by color; different diseases, violence, and ages;

JULY, 1891.

[illegible]

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 751

also daily meteorological conditions and variations, year ending June 30, 1892.

JULY, 1891.

## Meteorological conditions.

Mean barometer.	Mean relative humidity.	Exposed thermometer — Temperature.				Mean wet-bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
29.96	93	70	76	64	12	68	67	E.	NE.	153	1.48	1
30.02	90	67	72	62	10	62	61	N.	NE.	198	.83	2
29.87	80	72	79	64	15	65	63	S.	S.	162	.18	3
29.94	57	71	80	62	18	58	52	NW.	NW.	238	T	4
29.97	58	69	76	62	14	58	55	NW.	NW.	196	.01	5
30.04	61	72	83	61	22	60	57	NW.	W.	121	.....	6
29.90	76	72	87	58	29	66	65	W.	SW.	120	.04	7
29.88	97	58	62	54	8	58	57	N.	N.	216	1.60	8
30.10	74	65	75	55	20	59	55	N.	0	160	.....	9
30.26	63	68	80	57	23	61	50	N.	E.	89	.....	10
30.24	60	66	76	56	20	62	56	E.	NE.	116	.....	11
30.18	70	70	85	56	29	64	60	NE.	SW.	65	.....	12
30.18	73	72	84	50	25	68	65	SW.	S.	103	.....	13
30.06	78	80	88	72	16	72	70	S.	S.	166	.....	14
29.94	88	78	89	68	21	70	69	S.	S.	142	1.22	15
30.05	84	74	80	68	12	68	68	S.	NW.	67	.....	16
30.08	64	74	84	63	21	66	62	N.	SE.	123	.....	17
29.86	90	74	78	69	9	70	69	SE.	SW.	179	1.04	18
30.02	76	76	85	66	19	68	65	W.	W.	100	.01	19
30.12	92	74	83	66	17	70	70	W.	NE.	78	.05	20
30.26	76	76	86	60	20	70	68	NE.	NE.	85	.....	21
30.30	78	75	82	68	14	70	67	NE.	SE.	123	.....	22
30.20	88	78	85	71	14	72	70	SE.	S.	187	.44	23
30.08	87	78	83	72	11	72	70	SW.	S.	135	.15	24
30.01	66	76	87	65	22	68	63	N.	NW.	106	.32	25
30.03	66	70	76	63	13	59	54	NW.	SW.	105	.....	26
30.04	72	69	78	60	18	61	57	NW.	NW.	91	.....	27
30.04	83	71	81	61	20	66	64	W.	NE.	83	.15	28
29.92	86	73	81	65	16	68	67	N.	N.	87	.66	29
29.86	76	74	81	66	15	66	52	N.	NW.	116	T.	30
29.90	22	70	77	62	15	60	56	NW.	NW.	101	.....	31
30.04	96.7	2,377	2,499	1,961	538	2,025	1,940	NW.	NW.	4,081	8.40	.....
30.04	96.7	72.0	80.6	63.3	17.4	65.4	62.3	NW.	NW.	131.6	.271	.....



TABLE X CONTINUED—AUGUST, 1891.

		Mortality.																											
Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence.			Deaths by ages.							Mortality.																
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 8 years old, less those by violence.	Under 8 days old, less those by violence.	One day old and under, less those by violence.	Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths by color.	Total deaths.	
1	W.	11	1			4	7				1	6			1							1	1			1	12	21	
	C.	8	1			3	5				1	1			1	1	1				1	1			3	9			
2	W.	14				4	4	2				1	1		1	1			1			2			1	6	14	19	
	C.	5					3																		4	5			
3	W.	12				1	6	1	1			3	1			3						1	1		3	12	8	20	
	C.	8				1	6	1				2				1					2			1	2	8			
4	W.	12				2	4					2				1					2		1		5	1	12	18	
	C.	6				1	3				1	1				1									2	6			
5	W.	4					2				1	2				1	1	1								4	4	16	
	C.	12				1	7	1	1		1	3	1			1	1							2	3	12			
6	W.	7	1			2	1					1				1	1					1			3	2	8	16	
	C.	8				2	4					1			1	2								2	3	8			
7	W.	9				2	4					3										3			2	1	9	12	
	C.	3					2					1				1									1	3			
8	W.	8				1	1									3			1			1					8	19	
	C.	11				3	6					5				3	1	1						1		11			
9	W.	7			1	1	3					1	1								2			2	1	8	11		
	C.	3					2					1													2	3			
10	W.	11	1			3	3									1					3			1	2	12	10		
	C.	7					5					4							1		1			2	2	7			
11	W.	11	1			3	2					1				2					1		2	3	2	6	18		
	C.	6					5	2	1			2	1								1			3	2	6			
12	W.	17				4	5					4					3	2			5			3		17	29		
	C.	12				1	4	2	1							1	1						3	1	6	12			
13	W.	7				1	4	1				2	1												4	7	13		
	C.	6					4					1									2	1			1	6			
14	W.	4	1			1	2					1									1			1	1	5	11		
	C.	6					3	1							1	2					1			1	1	6			
15	W.	8	1			1	5				2	2									1		2	1	1	9	19		
	C.	9		1		1	2						1				3	1			2	1			1	10			
16	W.	9	1	1	1	1	2	1	1				3				2				1				1	12	20		
	C.	8				1	3					2				2			1			1		1	3	8			
17	W.	10	1			2	5	1	1			1	1	1					1		1			2	3	11	14		
	C.	3					1					1										1				3			
18	W.	9					5					2	2				1				2				2	9	16		
	C.	7				1	1					1				2								2	1	7			
19	W.	9				3	2	1				1	1	1							1			1	3	9	16		
	C.	6	1			2	1					1				1					3				1	7			
20	W.	9				1	3					2	1										3		2	9	18		
	C.	9					3	1				1				3	2				1					9			
21	W.	8				4	1															1			5	8	16		
	C.	8				1	5	1	1		1		3			1	3							1	1	8			
22	W.	5					3						2								1				2	5	13		
	C.	7	1			1	5																	1	3	8			
23	W.	10				2	5						1				1		1		1			2	3	10	20		
	C.	10					5				1		1			1	2			1	1				5	10			
24	W.	5				2	2					1	1												1	2	5	9	
	C.	4					4					1	2											1	1	4			
25	W.	10				3	1					1	2			1	1			1		2			1	10	17		
	C.	7				1	2	1						2							1				4	7			
26	W.	9				4	2						1									1			2	9	12		
	C.	3					2				1											1			1	3			
27	W.	5				1	1							2						1						5	15		
	C.	10				1	4	1				1	2	1			1				2		1		1	10			
28	W.	10				2	4		2	1			1				1					1			1	5	10	17	
	C.	7				2	1					1				1					1				2	7			
29	W.	7				1	1						1				3					1			1	7	18		
	C.	11				1	7	2				1				1					3				4	11			
30	W.	4				3							1				1					1			2	4	13		
	C.	9					5	2	1			1	1	1			2							3	3	9			
31	W.	9				1	3	2	1													4			2	9	13		
	C.	4				1						1		1			1								2	4			
Total and mean	W.	270	8	1	2	61	93	12	5	1	2	9	47	14	1	5	25	3	2	2	2	36	19	4	35	63	281	508	
	C.	223	3	1	0	24	110	15	5	1	0	8	36	8	2	8	34	7	4	0	0	23	9	4	16	63	227		

TABLE X CONTINUED—AUGUST, 1891.

Meteorological conditions.												
Mean daily barometer.	Mean relative humidity.	Exposed bulbs.				Mean wet bulb.	Mean dew point.	Direction of wind.		Total movement of wind.	Daily rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
29.82	79	68	80	57	23	66	64	NW.	S.	134	.....	1
29.78	86	76	87	66	21	68	67	NW.	N.	76	.....	2
29.96	72	71	76	60	10	63	59	N.	NE.	155	.01	3
30.02	90	74	81	67	14	70	60	NE.	NE.	95	.11	4
30.11	93	74	79	70	9	70	70	NE.	NE.	115	.05	5
30.13	86	78	83	70	13	70	68	NE.	E.	92	.01	6
30.12	85	76	86	65	21	70	69	E.	S.	68	.....	7
30.04	76	79	89	69	20	72	69	NW.	0	125	.....	8
30.02	76	82	93	72	21	74	71	NW.	SW.	75	T.	9
30.02	77	84	95	72	23	75	72	SW.	0	66	.....	10
30.02	80	84	93	75	18	74	72	S.	S.	94	T.	11
29.98	88	80	90	69	21	72	71	S.	W.	105	.35	12
30.06	70	76	82	69	13	64	61	N.	0	94	.....	13
30.06	66	71	83	59	24	65	60	NW.	S.	91	.....	14
30.02	80	74	83	65	18	68	66	NW.	NW.	110	.12	15
30.10	72	72	84	63	21	60	62	NW.	NW.	74	.....	16
30.10	68	72	82	61	21	60	62	NW.	SE.	107	.....	17
29.90	93	78	86	69	17	72	71	S.	SW.	82	.02	18
30.00	80	76	84	68	16	69	67	N.	NE.	91	.01	19
30.00	84	74	84	64	20	70	68	NE.	S.	166	.....	20
29.78	92	77	84	70	14	71	71	S.	W.	224	.89	21
29.88	79	78	88	68	20	72	70	0	S.	72	.....	22
29.84	95	81	90	72	18	75	74	S.	SW.	198	.22	23
29.92	88	76	81	71	10	72	71	S.	SW.	200	.86	24
30.21	80	66	69	62	7	63	61	NW.	N.	75	.98	25
30.19	88	82	78	65	13	60	67	N.	S.	47	T.	26
30.02	74	78	84	72	12	72	70	S.	SW.	109	.10	27
29.98	64	84	80	68	12	63	58	NW.	NW.	193	.....	28
30.16	82	60	64	56	8	54	53	N.	NW.	95	.16	29
30.12	90	62	70	54	16	60	58	NE.	NE.	98	.28	30
30.17	89	68	74	61	13	63	62	NE.	NE.	82	.....	31
{ 930.15 30.02	2,532 81.7	2,311 74.5	2,562 82.6	2,055 66.3	507 16.4	2,118 68.3	2,053 66.02	..... NW.	..... S.	3,403 109.8	4.18 1.35	

TABLE X CONTINUED—SEPTEMBER, 1891.

Day of month.	Color.	Mortality.																												
		Total deaths less those by violence.	Deaths by violence.			Death by ages.					Scarlet fever.	Croup.	Diphtheria.	Diarrhoeal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths by color.	Total deaths.		
			Accidents and negligence.	Homicides.	Suicides.	Injured in late war.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	Oneday old and under, less those by violence.																				
1.....	W.	10	1			1	5																							
	C.	8				2	3																							
2.....	W.	7				1	4																							
	C.	15	1			2	6			1																				
3.....	W.	8	2			1	3			1																				
	C.	7	1			1	4																							
4.....	W.	6	1			1	1			1																				
	C.	7				1	1			1																				
5.....	W.	13				3	3																							
	C.	7	1				3																							
6.....	W.	7				1	2																							
	C.	9				1	3																							
7.....	W.	4	1		1	2	1																							
	C.	6					1																							
8.....	W.	9				1	5			1																				
	C.	9				1	6																							
9.....	W.	8				1	3			1																				
	C.	5					2																							
10.....	W.	4	1			1	2			1																				
	C.	7				2	2																							
11.....	W.	4					3																							
	C.	10				2	5			2																				
12.....	W.	14				6	3																							
	C.	7					5			1																				
13.....	W.	10				1	5			1																				
	C.	5				1	1																							
14.....	W.	12			1	2	5			1																				
	C.	10					6																							
15.....	W.	9	1			1	4																							
	C.	7					3																							
16.....	W.	6			1	1	2																							
	C.	9				2	4			1																				
17.....	W.	4	1																											
	C.	11				1	8			1																				
18.....	W.	7	4				5			1																				
	C.	5					3																							
19.....	W.	12				2	5			1																				
	C.	7					3																							
20.....	W.	7	1			1	2																							
	C.	6				1	2																							
21.....	W.	4				2																								
	C.	5				1	4																							
22.....	W.	9			2	4	2																							
	C.	7	1			1	3			1																				
23.....	W.	9				2	6																							
	C.	7				1	1																							
24.....	W.	8				1	3																							
	C.	3					3																							
25.....	W.	2	2			1																								
	C.	9				2	5																							
26.....	W.	8				1	2																							
	C.	7	1			3	2																							
27.....	W.	7				2	6																							
	C.	7				1	1																							
28.....	W.	8			1		3																							
	C.	12				4																								
29.....	W.	5				1																								
	C.	7					3			2																				
30.....	W.	6					2			1																				
	C.	4					3																							
Total and mean.	W.	227	15	1	5	1	46	84	11	8	0	3	13	21	10	5	7	28	10	1	1	30	15	1	23	59	249	477		
	C.	223	5	0	0	0	25	105	13	6	0	3	11	31	11	3	5	24	11	3	1	27	9	2	14	68	228			



TABLE X CONTINUED—SEPTEMBER, 1891.

Meteorological conditions.												
Mean daily barometer.	Mean relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Daily rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.16	86	70	79	62	17	66	64	NE.	S.	60	.....	1
30.14	92	70	82	59	23	67	66	S.	NE.	97	.39	2
30.10	80	74	82	67	15	67	65	S.	S.	157	.....	3
30.08	92	74	82	65	17	68	68	E.	NE.	132	T	4
30.07	96	70	74	67	17	68	68	N.	NW.	136	1.62	5
30.05	77	72	79	66	13	66	64	NW.	NW.	111	.79	6
30.00	79	70	75	64	11	62	59	NW.	0	198	.....	7
30.14	84	64	71	58	13	60	58	0	N.	05	T	8
30.34	75	61	70	52	18	53	50	N.	N.	116	.....	9
30.40	74	62	75	49	26	56	52	W.	S.	65	.....	10
30.36	82	62	74	51	23	59	56	0	S.	78	.....	11
30.20	88	69	78	60	18	64	62	S.	S.	97	T	12
30.00	83	68	81	50	25	64	62	S.	0	76	.....	13
30.02	70	68	74	62	12	59	56	NW.	N.	161	.11	14
30.12	78	65	76	54	22	60	58	W.	SW.	106	.....	15
30.23	78	69	80	58	22	64	61	SW.	NE.	96	.....	16
30.36	82	70	84	57	27	66	64	0	S.	81	.....	17
30.22	81	77	90	64	26	69	67	S.	0	93	.....	18
30.12	65	76	87	66	21	66	62	NW.	NE.	110	.....	19
30.20	88	70	78	62	16	64	62	NE.	NE.	83	.....	20
30.16	84	69	82	56	26	65	63	0	0	60	.....	21
30.10	84	76	89	62	27	70	68	0	0	43	.....	22
30.08	86	77	86	67	19	71	70	0	NE.	60	.....	23
30.22	91	74	83	66	17	69	68	NE.	SE.	93	.....	24
30.22	86	72	82	62	20	66	65	S.	0	75	.....	25
30.16	88	76	88	66	22	69	68	0	0	59	.....	26
30.23	86	77	87	64	23	68	66	S.	S.	77	.....	27
30.25	84	73	83	63	20	68	66	0	S.	132	.....	28
30.12	92	69	74	64	10	67	66	S.	W.	85	.21	29
30.24	72	63	70	55	15	52	48	N.	NE.	161	.....	30
{ 905.19 30.17	2,483 82.8	2,106 79.2	2,395 79.8	1,824 60.8	571 19.0	1,933 64.4	1,872 62.4	..... S.	..... S.	3,012 100.0	3.12 .104	

TABLE X CONTINUED.—OCTOBER, 1891.

Mortality.																													
Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence.			Deaths by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of the lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.	
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	Under 1 day old, less those by violence.																				
1.....	W.	6	1			2	1										1					1			1	3	7	9	
2.....	C.	3					1					1	1				1	1				1			1	2	2	9	
3.....	W.	11				4	3						1	1								1			2	6	11	19	
4.....	C.	8					4						2				3					1			1	1	8		
5.....	W.	14				2	4	1	1			1	1				2	2			3	1		3	4	14	21		
6.....	C.	7				1	1	1	1			1					2				1				2	7			
7.....	W.	3	1				5				1		2		1	1	1	1			1				2	2	8	11	
8.....	C.	7				1	2	1								1	1	1				1			2	5	12		
9.....	W.	5					3				1		1	1		1	2			1		1			4	10	14		
10.....	C.	10				2	3					1	1				1					2			1	5	10	17	
11.....	W.	7					4	1											1			3			1	2	7	17	
12.....	C.	13				2	2						1	1		1	4	1			2	2	1		1	1	13	18	
13.....	W.	4		1		1	3										2	1		1		1			2	5	7		
14.....	C.	7				1	3	1	1		1	1										1			1	3	8	13	
15.....	W.	10				1	1					1	1	2		1	1					2				3	7	17	
16.....	C.	6				2	2										2	1				1			2	10	17		
17.....	W.	10				1	3					1	1				2					2			2	7	14		
18.....	C.	8				3	3	1	1			1		1			1	2				1			1	2	8	14	
19.....	W.	6					3					1													6	9	14		
20.....	C.	9				5	1	1	1				1				2	1				1			6	5	12	23	
21.....	W.	10	2			2	3	1				2					1	2		2		2	1		1	4	11	17	
22.....	C.	10	1			1	4					4	1	1			1	1				1			3	1	11		
23.....	W.	11				1	3						1				1	2				1			1	6	9	13	
24.....	C.	6				1	3					1	1				1	2				2			1	1	6	9	
25.....	W.	9				2	2					2	1	1			1			1		2				2	9	13	
26.....	C.	3	1				2	1													3					4	5	9	
27.....	W.	6					2																			1	3	8	9
28.....	C.	3					2	1				1							1			1			2	1	6	17	
29.....	W.	10				2	5					1	1				2	4	1	1		3			3	10	14	21	
30.....	C.	10	1			1	5	2									4	1			2				2	10	13	22	
31.....	W.	8				3	2	1	1		1											2			4	14	14	22	
	C.	12				1	4					1	1	1			2	1				2			4	11	13	22	
	W.	14				1	5	2	2			1	1				1	1				2			3	14	14	22	
	C.	8				2	3	1				1					1			1		3			2	8	9	14	
	W.	4	1			1	2		1								1					1			1	5	4	9	9
	C.	5				2	2													1					3	4	5	12	19
	W.	11				3	2					1	1	1			2					2			1	2	7	10	16
	C.	7	1			2	1					1		2								1			2	6	13	22	
	W.	10				1	3						1	1		1						1			3	9	10	18	
	C.	6				2	4	1	1		1											1			5	13	9	22	
	W.	13				1	5			1			3	1								1			1	3	10	18	
	C.	9					2										2	1							1	4	8	17	
	W.	10				2	2																		3	1	1	9	17
	C.	7				4	4	1	1				1	1			1	2	1	1		1			3	1	14	18	
	W.	13					3					1		3			1	2		1		1			1	1	4	11	15
	C.	4				2	3	1	1					2			2								1	4	11	15	
	W.	11					3										2								1	4	7	18	
	C.	3	1				7	2	2								3	1							2	7	11	18	
	W.	7				1	3										1								4	11	7	18	
	C.	10	1				7	2	2			1	1				3	1							4	11	18		
Total and mean.		W. 289 C. 190	6 8	1 1	0 0	58 14	79 84	13 16	7 9	2 0	4 1	21 8	16 15	24 13	2 0	7 4	32 29	7 17	3 5	5 3	0 0	38 24	18 8	3 0	28 8	79 55	296 199	495	

TABLE X CONTINUED.—OCTOBER, 1891.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed pulp.				Mean wet-bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.43	82	60	69	50	19	58	56	NE.	SE.	148	.....	1
30.37	86	69	76	62	14	64	62	NE.	0	69	.....	2
30.13	88	71	84	58	26	64	62	0	S.	53	.....	3
29.82	81	73	84	62	22	64	62	0	0	70	.....	4
29.86	71	70	79	60	19	60	56	NE.	NW.	178	T.	5
30.20	74	53	55	51	4	48	44	N.	E.	119	.01	6
29.96	98	53	56	50	6	52	52	NE.	NW.	139	.15	7
29.89	69	56	61	52	9	50	44	NW.	NW.	248	.07	8
30.10	72	55	62	48	14	46	42	N.	NE.	145	.....	9
30.14	70	52	59	48	13	48	44	NE.	NW.	97	.....	10
30.20	65	59	67	51	16	49	43	N.	NE.	227	.01	11
30.46	70	42	44	40	4	39	34	NE.	N.	292	.16	12
30.22	84	45	49	41	8	44	42	N.	NW.	190	.05	13
30.02	88	56	64	48	16	50	48	W.	S. W.	92	.....	14
30.00	72	59	68	50	18	48	42	S. W.	N. W.	174	.....	15
30.28	63	51	60	42	18	43	36	N. W.	N. W.	205	.....	16
30.38	80	49	62	36	26	43	40	0	S. E.	69	.....	17
30.20	86	50	63	36	27	45	43	0	E.	80	.....	18
29.94	96	54	61	48	13	53	52	N. E.	N. W.	117	1.10	19
29.93	73	50	55	46	9	44	40	N. W.	W.	221	.05	20
30.04	57	54	63	45	18	47	39	S. W.	0	164	.....	21
29.90	74	46	50	42	8	42	36	N.	N. W.	226	.59	22
30.00	46	46	54	38	16	36	24	N. W.	N. W.	560	.....	23
29.97	68	54	64	44	20	45	37	W.	S. W.	108	.....	24
30.06	74	51	61	41	20	44	39	N. E.	S. E.	80	.....	25
29.86	81	62	77	47	30	52	50	S. W.	N.	127	.....	26
30.08	54	46	52	41	11	38	30	N. W.	N. W.	414	.05	27
30.38	59	44	51	36	15	34	25	N.	0	212	.....	28
30.50	71	44	57	30	27	38	34	W.	S.	102	.....	29
30.39	64	54	60	43	23	43	40	S.	S.	.90	.....	30
30.08	62	58	72	44	28	48	44	S.	S. W.	1.25	.....	31
{ 933.79 30.12	2,278 73.5	1,686 54.4	1,945 62.7	1,428 46.1	517 16.7	1,479 47.7	1,342 43.3	N. E. N. E.	N. W. N. W.	4,972 160.4	2.24 .72	



TABLE X CONTINUED.—NOVEMBER, 1891.

Mortality.																													
Day of month.	Color.	Total deaths, less those by violence.	Death by violence.			Death by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.	
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																				
1.....	W.	9				3	2					1		3			1			1						5	9	16	
	C.	7				3	3				1			1			1			1			2			7	7		
2.....	W.	11				2	1							1			1					2			1	5	11	22	
	C.	10	1				1							2			3					1			1	1	11		
3.....	W.	7		1		3	1				1						1			1					4	8		21	
	C.	12	1			1	6	2	1					1			1			1		3		1	4	13			
4.....	W.	13				4	1					1		1			3	3	2			1		2	1	13		20	
	C.	7					5	3	1				1	1		1			1		1				2	7			
5.....	W.	6				1	1							1										1	2	1	6	7	
	C.	1				1																			1	1	1		
6.....	W.	11					3				1	1		1			1	1							1	5	11	14	
	C.	2	1				1												1							3	3		
7.....	W.	9	1			3	4	1	1			1				1	1	2							5	10		18	
	C.	8				2	4	1	1					1			1					1			2	8			
8.....	W.	8				3	1					1	1				1					1		1	1	1	6	14	
	C.	5	1				2	1	1					1			1			1					1	1			
9.....	W.	5				1	2		1					1								1			3	5		6	
	C.	1				1										2									1	1	1		
10.....	W.	9	1	1		1	3										4		1	1				1	1	1	11	18	
	C.	6	1			2	1	1	1								3					2			1	1	7		
11.....	W.	9				2	1					2	1				2	2				1				1	9	14	
	C.	5					2	1									2					2			1	5			
12.....	W.	10	1			2	1					1					1					2			1	4	11	18	
	C.	7				1	2							1		1	1					1			1	1	7		
13.....	W.	6	1			3	1					1					1								2	7		15	
	C.	8					2				1	2					1					1			3	8			
14.....	W.	6			1		1					2					1			1					1	7		14	
	C.	7					3	1	1					1						1					2	7			
15.....	W.	5				2	2										1	2				1			2	5		12	
	C.	7				1	3	2	1								1					1			4	7			
16.....	W.	9				3	1				1						2	1							1	4	9	15	
	C.	5		1													2					1			2	6			
17.....	W.	7					1						2									2			1	2	7	10	
	C.	2		1			2															2				3			
18.....	W.	7				4											1	1		1						1	7	9	
	C.	2				1	1	1														1			1	2			
19.....	W.	5				1	2				1	1										2				1	5	11	
	C.	6				1	3										1					2			1	1	6		
20.....	W.	14				1	5	1	1			2		2			2					1			2	4	14	19	
	C.	5					2	1	1					1			1	2							1	1	5		
21.....	W.	10				1	1										4	1				2			1	1	10	15	
	C.	5					3				1		1									1				2	5		
22.....	W.	11	1			2	3					1		2			2			1	1					4	12	19	
	C.	7					4										2	2								2	7		
23.....	W.	8	1			2	2					1					1								2	4	9	14	
	C.	5					2										1					1			1	1	5		
24.....	W.	9				4	1										1					1			1	3	9	17	
	C.	8				2	2							1		1									3	8			
25.....	W.	6	1	2		1	2					1								1	1				1	3	7	17	
	C.	7					2							1			2		2	1		1				1	10		
26.....	W.	13				3	3										1	3	2	1	1		2			1	13	23	
	C.	10					4	2	2					1												4	10		
27.....	W.	8		1		2	3					2	1	1			2					1				1	9	17	
	C.	7	1			2	3										2					1				3	8		
28.....	W.	7				2	1	1									1			1							7	11	
	C.	4					1										2	1				1			3				
29.....	W.	7			1		2							1								1			1	1	8	10	
	C.	2					1										1			2		1				1	2		
30.....	W.	8					3	3	2																	4	8	13	
	C.	4	1									1		1				1							1	2	5		
Total and mean	W.	253	7	3	2	56	55	7	5	0	4	24	5	15	0	1	37	17	6	7	1	25	11	1	23	76	265	449	
	C.	172	8	4	0	20	65	16	10	0	3	4	2	11	0	4	29	10	9	5	1	24	10	3	6	51	184		

TABLE X CONTINUED.—NOVEMBER, 1891.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet-bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.14	48	54	60	49	11	44	32	NW.	NW.	172	.....	1
30.37	62	44	50	37	13	34	26	NW.	NW.	155	.....	2
30.42	72	41	50	32	18	34	28	NW.	N.	99	.....	3
30.26	66	40	48	31	17	34	27	N.	SE.	85	.....	4
30.03	96	37	41	33	8	36	35	SE.	N.	89	.34	5
30.18	76	42	49	35	14	35	31	NW.	NW.	211	.....	6
30.12	70	44	56	33	23	37	31	NW.	NW.	89	.....	7
30.10	74	46	62	30	32	38	33	0	SE.	64	.....	8
30.18	82	50	66	34	32	42	40	SE.	SE.	97	.....	9
30.02	92	55	68	42	26	55	54	E.	SE.	215	.....	10
29.96	82	55	62	48	14	48	45	N.	0	166	.43	11
30.10	76	51	66	36	30	42	38	0	NW.	117	T.	12
30.38	72	46	55	37	18	37	32	NW.	N.	139	.....	13
30.50	74	43	56	30	26	36	32	0	SW.	52	.....	14
30.58	76	43	51	35	16	41	38	NE.	NE.	133	.....	15
30.30	98	47	53	41	12	48	48	NE.	S.	93	.06	16
29.98	73	48	64	32	32	43	36	S.	NW.	399	.25	17
30.64	55	28	36	21	15	22	11	NW.	NW.	315	.....	18
30.80	70	29	40	18	22	26	20	0	S.	64	.....	19
30.60	87	40	55	26	29	34	31	0	S.	75	.....	20
30.40	86	44	56	31	25	42	40	S.	SE.	67	.....	21
30.08	83	57	64	50	14	52	50	E.	S.	143	T.	22
29.54	69	56	65	48	17	50	43	SE.	SW.	395	.19	23
29.84	60	46	56	37	19	37	29	SW.	NW.	165	.....	24
30.06	64	44	55	32	23	37	30	SW.	N.	91	.....	25
29.93	88	41	45	37	8	38	36	NE.	N.	93	.14	26
29.84	74	45	56	34	22	40	36	SW.	S.	156	.05	27
29.94	70	50	58	42	16	41	36	S.	NW.	237	.01	28
30.34	57	26	28	23	5	22	12	NE.	N.	292	T.	29
30.46	35	26	34	17	17	19	26	N.	NW.	194	.....	30
906.09 30.203	2,187 72.9	1,318 43.9	1,605 53.5	1,031 34.4	.574 19.1	1,144 38.1	1,006 33.5	NW.	NW.	4,665	1.47 .049	

TABLE X CONTINUED—DECEMBER, 1891.

Day of month.	Color.	Mortality.																										
		Total deaths, less those by violence.	Deaths by violence.			Deaths by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths by color.	Total deaths.
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	Under 5 years old, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																			
1.....	W.	11	1			2	4	3	2			1				1	1	1			3	1			2	3	12	20
2.....	C.	6	2			1	5	1				1		1			1	1			1				1	3	8	9
3.....	W.	3																										
4.....	W.	14				3	6	2			1	2					1	1			4	1		1	3	14	19	
5.....	C.	5				1	2	1									1	1			1				2	5		
6.....	W.	13				2	4	1	1					1		1	1				4	1		4	13	17		
7.....	C.	4				2	2	1	1								1				1	1			1	4		
8.....	W.	9				3	2	2						1			2	2			2				1	9	15	
9.....	C.	6				1	2	1	1			1					2	2	1	1	1				1	6		
10.....	W.	5	1			3											2	2		1	1				1	5	15	
11.....	C.	8				2	3	3									1	1			1				3	10		
12.....	W.	2					1	1												1	1				1	1	10	
13.....	C.	5					2	1																				
14.....	W.	13	1			5	4	4	1								1	1			1				4	13	20	
15.....	C.	6				1	4	1									1	1			3				7	13		
16.....	W.	9				1	4	1									1	1			1				3	11	15	
17.....	C.	6				2	2	1									3				1	1			2	6		
18.....	W.	11			1	3	2	1	1					1							6	1			1	12	19	
19.....	C.	7				2	1	1	1								1				3				1	7		
20.....	W.	6				1	1	1	1												2				3	6	9	
21.....	C.	3				2	1	1	1								1				1				2	3		
22.....	W.	10				2	3					1	2	1			1	2			1	2			1	10	21	
23.....	C.	10		1		2											2	3			1				3	11		
24.....	W.	9				3											1	1			3				1	9	17	
25.....	C.	8				1	3	5	1					1			1	1		1					3	11		
26.....	W.	13				1	4	3	2							1	1		3	1	3				2	13	21	
27.....	C.	8				1	4	2									1			1	1				2	8		
28.....	W.	9	1			4	3	1	1					1			1			1	1				4	15		
29.....	C.	5				1	3	1									1			1	1				1	9	14	
30.....	W.	9				1	4	3	1								1	1		1	1				1	5		
31.....	C.	5				4	3	1						1			1			1	1				1	17		
1.....	W.	17				4	6	2	1								2	2			4	3			5	17	23	
2.....	C.	5	1			1	3	1										1	1		2				1	6		
3.....	W.	5				1	1	1				2					1	1							1	6	11	
4.....	C.	5				1	1	2									2	2		1	3				1	5		
5.....	W.	10				5	3	3	2	2			1				2	2		1	2				2	10	17	
6.....	C.	6	1				3	3									2	1		1	2				2	7		
7.....	W.	10				2	3	1				1					2	1		1	2				2	10	23	
8.....	C.	12	1			1	5	1	1								2	1		1	2				3	13		
9.....	W.	7	1									2					1	1							2	8	21	
10.....	C.	13				2	4										2			1	2				7	13		
11.....	W.	6	2			2	2										2	2		1	1				1	8	18	
12.....	C.	9	1			4	2										2	4		1	1				1	10		
13.....	W.	6					2										2	3		1	1				1	7	14	
14.....	C.	7					4										1	3		1						7		
15.....	W.	13				5	3						1				1	3		1	2				3	13	22	
16.....	C.	9				4	1	1										3		1	1				4	9		
17.....	W.	14				4	4	1	1								2	2		3	3				2	14	23	
18.....	C.	9				4	2										1	1		1					3	9		
19.....	W.	13	1			4	3	1	1								1	2		1	5				3	14	18	
20.....	C.	4				1	1										1	1							2	4		
21.....	W.	8				5											1	2			3				2	8	15	
22.....	C.	7				1	2										1	1			1				2	7		
23.....	W.	9				6	2	1									1	3			1				3	11	22	
24.....	C.	12	1			3	2										1	4			1				2	13		
Totals and mean		W. 293 C. 204	6 11	0 1	2 0	88 34	72 82	19 14	6 5	0 0	6 2	15 1	6 5	6 6	1 1	2 2	28 25	32 34	9 14	10 4	1 0	59 26	17 14	2 2	19 12	80 55	301 216	517



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 761

TABLE X CONTINUED—DECEMBER, 1891.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-points.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.46	64	32	46	18	28	26	19	0	S.	90	.....	1
30.30	66	38	52	25	27	30	24	S.	S.	64	.....	2
30.28	84	42	56	27	29	40	36	S.	S.	63	.....	3
29.92	71	56	64	47	17	49	44	SE.	SW.	305	.43	4
30.19	53	46	57	36	21	37	26	SW.	S.	140	.....	5
30.04	67	46	58	35	23	40	33	0	S.	97	.....	6
29.90	79	49	59	39	20	44	40	0	NW.	304	.85	7
30.42	64	38	45	30	15	32	24	W.	SW.	116	.....	8
30.37	59	43	54	32	22	34	24	SW.	S.	90	.....	9
30.30	81	42	61	24	37	30	26	S.	S.	46	.....	10
30.39	56	43	57	29	28	30	30	SW.	NW.	145	.....	11
30.50	49	44	52	35	17	34	22	NW.	W.	193	.....	12
30.34	59	44	60	29	31	26	23	NW.	0	90	.....	13
30.20	68	45	60	30	30	36	30	W.	W.	37	T.	14
29.90	78	51	64	38	26	50	47	NE.	SW.	132	T.	15
29.96	44	50	57	44	13	42	30	NW.	NW.	375	.10	16
30.22	56	31	35	27	8	26	16	NW.	NW.	337	.....	17
30.63	67	25	35	15	20	10	12	N.	SW.	109	.....	18
30.48	66	32	47	17	30	24	18	W.	SW.	48	.....	19
30.39	61	37	46	28	18	30	22	SW.	E.	47	.....	20
30.42	96	38	50	27	23	33	32	E.	NE.	34	.....	21
30.31	91	45	54	36	18	46	45	NE.	S.	89	T.	22
30.07	91	60	67	52	15	56	55	S.	SW.	188	.01	23
29.92	98	62	66	58	8	58	58	S.	S.	92	.97	24
30.14	98	50	52	48	4	50	49	E.	SE.	100	.....	25
29.85	81	54	60	48	12	47	44	S.	NW.	263	.10	26
30.18	43	35	38	32	6	28	13	NW.	NW.	280	.....	27
30.36	68	34	44	23	21	27	20	0.	SE.	96	.....	28
29.94	90	44	54	34	20	40	38	S.	SW.	163	.81	29
30.28	47	42	47	37	10	32	20	NW.	NW.	354	.....	30
30.63	66	28	45	32	13	32	25	W.	SE.	97	.....	31
937.09 30.23	2,161 69.7	1,336 43.1	1,642 53.0	1,032 33.3	610 19.7	1,128 36.4	945 30.5	..... S.	..... S.	4,602 148.5	2.80 .090	

TABLE X CONTINUED.—JANUARY, 1892.

		Mortality.																														
Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence.				Deaths by ages.								Scarlet fever.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
			Accidents and negligence.	Homicides.	Suicides.	Wounds in civil war.	60 years old and over, less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.	One day old and under, less those by violence.																						
1.....	W.	12					4	1											2	1							1	5	21	23		
	C.	11					1	5	1										3	5	1						2	11				
2.....	W.	10					2	4											2	2	1	2						3	10	14		
	C.	4						3						1														1	4			
3.....	W.	8		1			3	3	2										1	2				1	1	2	9	13				
	C.	4						3	1	1									1	1				1	1	4						
4.....	W.	11					3	3			1	1	1						4	1				2		1	11		15			
	C.	4						2	1	1									1	2						3	4					
5.....	W.	14		1			3	4											1	2				3	1	2	15		23			
	C.	8					2	2											2	2		1				1	8					
6.....	W.	13					4	1											1	3	2	1			1	5	13		22			
	C.	9					3	4	1	1									1	1	1		1	1		3	9					
7.....	W.	15					3	4	1										4	2				1	1	5	15		24			
	C.	8	1				1	2											2	2	2					2	9					
8.....	W.	11					5	2	1	1									1	3	1	1		1	2	11		18				
	C.	7					1	4											1	1	1					2	7					
9.....	W.	5						1											1	3						1	5		11			
	C.	6					1	2	1	1									1	3		1		1			6					
10.....	W.	12		1			3	5											1	2	3			2		2	13		23			
	C.	10					1	6	1	1									1	4				1	2	3	10					
11.....	W.	12	1			1	3							1					1	3				1	2	4	11		25			
	C.	11					2	7	1	1									1	4	2					1	11					
12.....	W.	15	1				11	1	1											1		1			2	5	16		22			
	C.	6					1	3											1	2	2					1	6					
13.....	W.	11					3	5	1										1	2		1				1	11		17			
	C.	11					3	3											3							1	6					
14.....	W.	12					4	2	1	1									1	4				2		1	12		23			
	C.	11					2	7	2	1									2	4						4	11					
15.....	W.	15					8	4											2	1	1	2				3	15		25			
	C.	10					2	4	1										2	1		2				1	10					
16.....	W.	15					5	11											1	4	2					2	15		21			
	C.	6					2	2											1	1						2	6					
17.....	W.	10					4	2			1	1	1						1	3						3	10		17			
	C.	7					1	5	2	2									1	2						5	7					
18.....	W.	8					3	2	1										3	2						1	8		17			
	C.	9					2												1	1						1	9					
19.....	W.	11					4	2	1	1									1	3	1					5	11		25			
	C.	14					4	7	1	1									6	4						2	14					
20.....	W.	10	1				1	3											1	5		1			2	1	11		13			
	C.	2						1	1	1									1							1	2					
21.....	W.	15					3	4	1	1									1	2	2			2		6	15		25			
	C.	10					3	4	2										2	4	1					1	10					
22.....	W.	14					3	5											1	2	3			2		2	14		24			
	C.	10					2	4	1										1	3		1				3	10					
23.....	W.	12					2	4	1	1									1	2						3	12		21			
	C.	9					1	5											1	1	3	1				2	9					
24.....	W.	11					6	2											1	1			1			3	11		21			
	C.	10					5	3											1	2	1					4	10					
25.....	W.	13					3	4	1	1									1	1						1	8		18			
	C.	5					1	4	1	1									1							2	5					
26.....	W.	8	1				4	3											1	2	3						8		22			
	C.	13					2	6	1	1									2							2	13					
27.....	W.	20	1				6	6											3	7	2	2				3	21		31			
	C.	10					2	3											1	2		2				1	10					
28.....	W.	11					4	4	1	1									2	2		1				2	9		20			
	C.	11					1	9											1	1	1					5	11					
29.....	W.	17					6	2											1	2						3	17		27			
	C.	10					3	3											4			3					10					
30.....	W.	10					4	3											1	2		2				1	10		22			
	C.	12					1	4	2	1									2	2						4	12					
31.....	W.	9		1			5	2	1	1										2	1					6	10		21			
	C.	10	1				4	2											1	1						4	11					
Totals and means	W.	368	5	4		1	120	93	14	9	2	7	3	7	1	35	75	25	18	1	46	32	1	21	93	378		643				
	C.	263	2	0	0	0	54	116	22	14	0	1	3	6	0	32	64	22	11	0	24	15	4	12	68	265						

TABLE X CONTINUED.—JANUARY, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet-bulb.	Mean dew point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.25	80	41	52	30	22	37	34	SE.	S.	129	.....	1
29.60	80	47	58	36	22	44	40	SW.	NW.	409	.74	2
29.87	54	24	28	20	8	20	9	NW.	NW.	375	T.	3
29.82	76	24	29	19	10	22	18	SW.	SW.	156	.08	4
29.76	86	29	37	21	16	20	26	E.	NE.	116	.....	5
29.42	77	32	35	29	6	30	26	W.	W.	247	.85	6
29.89	60	30	37	23	14	24	16	W.	W.	209	.....	7
30.12	64	29	38	20	18	24	16	SW.	SW.	104	.....	8
30.36	68	31	35	27	■	26	20	N.	NE.	118	.....	9
30.56	54	27	30	24	6	23	12	NE.	NE.	170	.....	10
30.49	94	28	31	24	7	28	26	N.	NE.	146	.04	11
30.30	100	34	37	30	7	35	35	NE.	NE.	87	.59	12
30.06	98	39	43	35	8	39	38	W.	SE.	69	.74	13
30.00	75	51	62	40	22	52	44	S.	NW.	282	.56	14
30.32	86	30	32	27	5	28	24	N.	NW.	283	.87	15
30.59	73	21	28	14	14	16	10	N.	N.	130	.....	16
30.61	88	19	34	4	30	16	12	N.	SE.	52	.....	17
30.21	99	30	38	22	16	33	32	E.	NW.	72	.30	18
29.96	97	33	40	26	14	30	30	SW.	NW.	171	.66	19
30.32	71	17	21	13	8	14	8	N.	NW.	237	.25	20
30.38	62	24	40	9	31	31	18	SW.	SW.	97	.....	21
30.26	73	31	42	20	22	24	22	NE.	S.	109	.....	22
30.00	58	40	45	34	11	33	24	W.	NW.	253	.....	23
29.88	74	37	44	30	14	31	26	SW.	W.	177	.....	24
29.62	64	45	62	28	34	34	26	SW.	NW.	182	.....	25
30.02	46	22	26	19	7	18	3	NW.	NW.	486	.....	26
30.34	51	21	28	14	14	16	5	NW.	NW.	381	.....	27
30.10	62	32	44	21	23	26	17	SW.	SW.	102	.....	28
29.81	66	41	49	33	16	37	30	S.	E.	82	T.	29
29.94	86	36	37	35	2	35	33	NW.	NW.	179	.10	30
30.18	68	38	41	34	7	36	29	NW.	NW.	280	.....	31
933.04 30.10	2,270 73.2	982 31.7	1,201 38.7	761 24.5	440 14.2	882 28.5	706 22.8	7.9 SW.	..... NW.	5,881 189.7	5.84 .....	



TABLE X CONTINUED—FEBRUARY, 1892.

Monthly.																												
Day of month.	Color.	Total deaths, less those by violence.	Death by violence.			Death by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fevers.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																			
1.....	W.	13				4	3	2	1			1		1			1	1	1	1	2	1		1	4	13	20	
2.....	C.	7				2	4										1	1			2			1	2	7	18	
3.....	W.	8				3								3			2			2	1				3	10	8	
4.....	C.	10				2	1					1		1			1	1						1	1	6	10	
5.....	W.	4				1	1										2								1	4	8	
6.....	C.	11				2	1									3	1	3			2	1			5	11	19	
7.....	W.	8				2	3									1	1	1	1	1	2				2	8	19	
8.....	C.	11				1	4		2					2		2	1	2	3		2				3	14	23	
9.....	W.	13		1		5	2		1				2			1	2	1	1	1	1		1	1	1	9	23	
10.....	C.	9				2	2		2							1	1	1			2				3	11	16	
11.....	W.	11				5	4									4	4	1							1	5	7	
12.....	C.	5				1	4		1					1		3	3	1			3				2	11	14	
13.....	W.	14				1	4		1			1					2	2	1		1				3	14	21	
14.....	C.	7				3	4		1							2	2	2	1		1				1	7	11	
15.....	W.	11				4	4		1					1			4	1	1		2				2	11	14	
16.....	C.	3				2	1										1	2	1	1					1	3	7	
17.....	W.	7					2										2	3	1		1				1	1	3	
18.....	C.	14				1	4									3	3	1			3				3	14	21	
19.....	W.	7				4	4		1								4	4	1		2				1	11	14	
20.....	C.	3					2										1	1			1				1	3	7	
21.....	W.	15				1	6		1					1		2	3	1		1	1				5	15	22	
22.....	C.	11				2	3									4	1	1	1		3				2	12	23	
23.....	W.	12				3	4									1	2	3			1				1	11	18	
24.....	C.	7				1	2		1							1	2	3			2				1	7	13	
25.....	W.	9					3													1	2				1	6	10	
26.....	C.	10					4				1					1	2	2	3	1	1				3	10	12	
27.....	W.	6					3									2	1	1	1	1	1				1	8	12	
28.....	C.	7					1										1	2							1	7	13	
29.....	W.	12					4										3	3			1				2	10	15	
30.....	C.	4					1										1	1	1	1	1				1	5	7	
31.....	W.	11					4										2	2			3				4	10	16	
32.....	C.	5					2										1	1	2		1				1	5	11	
33.....	W.	13					4										5	2	1	1	4				1	11	13	
34.....	C.	11					1										2	2	2		2				1	11	11	
35.....	W.	12					3										1	1	1	1	1				4	12	19	
36.....	C.	7					1										2	1		1	1				1	7	7	
Total and Mean	W.	262	3	2	0	75	62	9	6	1	1	7	2	10	0	1	27	42	19	13	1	37	15	3	21	63	267	504
	C.	235	1	1	0	33	97	10	4	0	1	3	2	3	0	2	43	45	18	6	1	26	10	1	13	61	237	

## REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 765

TABLE X CONTINUED—FEBRUARY, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.15	68	40	53	28	25	34	28	SW.	SW.	71	T.	1
29.94	70	48	61	34	27	40	34	0	W.	78	.....	2
30.02	56	44	48	30	9	36	26	NW.	NW.	100	.....	3
30.16	60	39	44	34	10	33	24	SW.	NW.	182	.....	4
30.10	88	27	32	22	10	26	24	NE.	NW.	172	.72	5
30.44	81	20	35	6	29	10	12	W.	SW.	77	.....	6
30.04	86	30	38	22	16	32	30	E.	SW.	150	.56	7
29.78	68	49	60	38	32	41	35	S.	N.	151	.01	8
30.02	68	37	44	30	14	32	30	0	NW.	206	.....	9
29.98	78	35	42	28	14	29	24	0	S.	163	.....	10
29.48	67	40	47	33	14	31	23	E.	NW.	276	.02	11
29.68	55	24	28	20	8	19	8	NW.	NW.	545	.....	12
30.00	47	25	34	16	18	20	7	NW.	E.	503	.....	13
29.84	80	36	48	23	25	34	30	SW.	S.	145	.01	14
30.21	56	45	54	36	18	33	24	NW.	NW.	321	.....	15
30.59	62	30	37	24	13	25	17	NE.	E.	136	.....	16
30.68	60	26	32	19	13	21	12	N.	NW.	182	.....	17
30.33	50	37	54	20	34	31	20	SW.	S.	70	.....	18
30.20	74	44	50	38	12	38	34	NE.	NE.	107	T.	19
30.20	92	46	54	39	15	43	42	NE.	NE.	120	.07	20
30.34	88	39	42	36	6	40	37	NE.	NE.	200	.01	21
30.42	82	45	50	40	10	38	36	NE.	NE.	244	T.	22
30.46	74	41	48	34	14	34	29	NE.	NE.	218	.....	23
30.38	84	34	38	31	7	34	32	N.	NE.	161	T.	24
30.20	98	38	42	35	7	34	38	N.	NE.	122	.16	25
30.21	86	44	49	40	9	42	40	NE.	N.	185	.37	26
30.48	68	42	44	40	4	36	30	NE.	NE.	321	.04	27
30.48	90	29	32	26	6	28	26	NE.	NE.	301	.01	28
29.94	100	36	43	30	13	37	37	NE.	N.	352	1.61	29
874.75 30.16	2,136 73.7	1,070 36.9	1,283 44.2	861 29.7	422 14.6	937 32.3	784 27.0	..... NE.	..... NE.	5,966 205.7	3.64 .126	

TABLE X CONTINUED.—MARCH, 1892.

[illegible]



TABLE X CONTINUED.—MARCH, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
29.91	88	36	40	33	7	34	32	NW.	NW.	303	.18	1
30.17	79	30	33	28	5	28	25	N.	N.	306	.10	2
30.13	57	35	44	26	18	30	20	NW.	NW.	330	.....	3
29.95	57	47	59	35	24	39	31	NW.	NE.	162	.....	4
29.88	88	40	46	34	12	37	35	0	NW.	110	.06	5
30.01	55	39	47	31	16	32	23	NW.	N.	230	.....	6
29.97	65	44	55	33	22	36	30	NW.	W.	127	.....	7
29.47	96	43	40	40	0	41	41	NE.	NW.	133	.93	8
29.55	76	47	56	38	18	42	38	W.	SW.	151	.06	9
29.72	77	42	54	30	24	34	30	SW.	NW.	272	.44	10
30.04	58	26	33	18	15	22	12	W.	NW.	494	.....	11
29.97	48	44	64	24	40	34	22	S.	NW.	253	.....	12
30.05	80	36	42	30	12	34	30	N.	NE.	185	T.	13
30.32	47	30	36	24	12	23	10	NW.	N.	334	.....	14
30.39	74	31	37	25	12	26	19	NW.	S.	171	.01	15
30.36	82	28	31	24	7	24	20	NE.	N.	164	.53	16
30.27	79	27	30	24	6	23	18	N.	NE.	151	.28	17
29.79	80	28	31	24	7	26	23	N.	NW.	300	.63	18
29.94	51	31	40	22	18	26	15	W.	SW.	395	.....	19
30.27	43	34	38	30	8	28	14	W.	W.	301	.....	20
30.04	54	30	25	24	11	23	12	NW.	NW.	148	.....	21
30.42	65	29	41	17	24	29	22	0	SE.	102	.....	22
30.03	78	52	60	37	29	26	42	S.	NW.	247	.10	23
30.21	62	42	50	34	16	36	28	N.	W.	125	.....	24
30.12	66	44	60	29	31	30	32	SW.	S.	94	.....	25
29.85	94	44	49	40	9	43	42	0	E.	118	.48	26
29.80	100	42	46	38	8	41	41	NE.	N.	204	1.06	27
30.06	63	44	50	39	11	38	30	NW.	NW.	400	.02	28
30.28	46	45	54	36	18	36	28	NW.	N.	251	.....	29
30.30	71	41	50	32	18	34	28	NE.	S.	131	.10	30
30.30	94	40	42	37	5	38	37	NE.	NE.	185	.72	31
931.57 30.05	2.173 70.1	1,170 37.7	1,405 45.3	933 30.1	472 15.2	1.002 32.3	839 26.8	NW.	NW.	6,898 222.5	5.70 1.84	

TABLE X CONTINUED—APRIL, 1892.

Day of month.	Color.	Mortality.																											
		Total deaths, less those by violence.	Death by violence.			Death by ages.				Scarlet fever.	Croup.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.	
			Accidents and negligence.	Homicides.	Suicides.	60 years old and over, less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.	1 day old and under, less those by violence.																				
1.....	W.	13			1	5	2										2	1	1			2	1		1	5	14	25	
2.....	C.	11				1	4	2									3					1	1		3	4	11	8	
3.....	W.	3	2			2				1															2	1	5	3	
4.....	C.	3				1											2	1	1	1		1			3	14	8	22	
5.....	W.	13	1				6	1	1		5						2	1	1	1		1		1	2	6	9	16	
6.....	C.	8				1	3	2	2								2					1			1	2	7		
7.....	W.	9		1	1	2	2			2							2	1				1		2	1	5	4	9	
8.....	C.	5				2											1	1				1		2	1	5	5	10	
9.....	W.	5				1	2						1					1	1	1		1				1	5		
10.....	C.	5				2	2				1							1			1					1	5	6	16
11.....	W.	6				1	2										1	1	1			1				4	6		
12.....	C.	10				1	4						2				1	1	1		2				3	10	6	13	
13.....	W.	6			1	4	1			2							1	1			1				4	4	7		
14.....	C.	6	1			5	3	1									1	1	1	1		3			4	13	4	17	
15.....	W.	12				1	2				2						1	1		1		1		1	1	2	9	17	
16.....	C.	9				4	3	1					1				2	1	1						4	9	8		
17.....	W.	8				4	4	1	1								1	3	1		3	2			2	11	6	17	
18.....	C.	6				4	4						2				1	1	3					4	1	10	6		
19.....	W.	10	1			1	2										1	1	1	1		3			4	1	9	19	
20.....	C.	8				1	2										1	1	1	1		1		2	4	12	5	17	
21.....	W.	12				6	4	1									1	1	3	1	3			3	3	5	8	16	
22.....	C.	5				1	5						1				3	1			1				2	8	5	9	
23.....	W.	8				1	2										1	1	1			1			2	5	4		
24.....	C.	8				1	5										1	1	1	1		1			3	8	8	1	
25.....	W.	8				1	4										1	1	1		1				2	5	4		
26.....	C.	5	1			2	2										1	1	1	1		3			1	6	9	15	
27.....	W.	4				1	1										2	2	2						4	10	5		
28.....	C.	6	2			2	4	1									1	1	2		4	1			3	15	8	25	
29.....	W.	15				5	3										1	1	2	1		4		1	4	10	15		
30.....	C.	9		1		1	1										1	2		1		1			5	10	5		
1.....	W.	11				2	3	1			1						1	1	1			1			3	9	6	20	
2.....	C.	9				4	4										2	2	1	1		3			6	11	8	14	
3.....	W.	11				2	3	1			1						1	1	1			1			2	11	3		
4.....	C.	3				1	1										1	1	1						1	5	5	10	
5.....	W.	4				1	1										1	1	1			1			2	5	2		
6.....	C.	5				1	1										1	1	1			1			3	9	9	20	
7.....	W.	9				2	2	1	1		1						1	1	1	1		3			6	11	8	14	
8.....	C.	8				1	2										1	1		1		1			1	8	6		
9.....	W.	6				2	4	1									3	1	1			4			2	2	8	16	
10.....	C.	7				2	3	2									2	2	1	1		2			4	8	8	15	
11.....	W.	8				2	3	1	1								1	1	1		2				3	9	6		
12.....	C.	9				3	1	1					1				2	1	1		2				2	9	8	10	
13.....	W.	6				1	2	1									2	1	1			1			1	2	2		
14.....	C.	6				2	3	1	1								1	1	1						3	6	8	12	
15.....	W.	8				3	1	3	1		1						1	1		1		1			4	1	8		
16.....	C.	4				3	1	1									1	1	1			1			1	4	4	16	
17.....	W.	7				4	1										1	1				2			3	7	9	8	
18.....	C.	8				2	2	2									2	1	1						2	5	3		
19.....	W.	9				3	1										1	1	1			1			1	2	3	11	
20.....	C.	6	1			2	3	1									1	2				2			2	6	9	16	
21.....	W.	7				4	1										1	1							3	5	6		
22.....	C.	9				1	4	1									2	1							1	2	3	7	
23.....	W.	5				3	1											1				1			2	3	5	8	
24.....	C.	3				2	3	1									1	1	1			2			1	2	3		
25.....	W.	4				3	1										1	2				2			1	6	9	11	
26.....	C.	6				4	2										1	1				2			3	9	7	16	
27.....	W.	9				1	4	1									1	1							3	5	6		
28.....	C.	5				3	1											1				1			2	3	3	7	
29.....	W.	3				2	3	1									1	2				2			1	2	6		
30.....	C.	4	1			3	2										1	1				2			3	9	7	16	
Total and Mean.....	W. C.	235 193	7 4	0 3	2 2	76 25	55 73	12 17	4 7	9 1	0 2	5 2	2 1	5 2	0 0	1 1	26 33	17 21	6 11	3 6	1 0	46 18	17 13	2 2	16 10	79 70	244 202	446	

TABLE X CONTINUED—APRIL, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.44	85	46	52	39	13	44	42	NE.	NE.	139	.02	1
30.23	88	56	65	48	17	55	54	S.	SW.	189	.04	2
30.09	72	69	81	57	24	66	58	S.	S.	156	.....	3
30.01	65	72	81	62	19	60	50	S.	S.	191	.....	4
29.99	68	68	74	61	13	62	57	S.	S.	142	.03	5
29.96	50	70	76	63	13	56	48	SW.	N.	250	T.	6
29.93	68	54	60	48	12	47	42	NE.	S.	93	.07	7
29.74	62	60	71	40	22	52	46	NW.	NW.	241	.06	8
28.87	41	41	47	35	12	33	18	NW.	W.	419	.02	9
30.01	48	38	43	32	11	31	20	NW.	NW.	376	T.	10
30.16	44	40	48	32	16	32	18	W.	NW.	235	.....	11
30.26	41	40	50	31	19	34	20	NW.	NW.	236	.....	12
30.25	48	46	58	34	24	38	20	NW.	W.	197	.....	13
29.80	82	46	49	42	7	43	40	E.	NE.	164	.80	14
29.83	70	42	49	35	14	36	30	N.	NW.	282	.17	15
30.02	41	45	54	36	18	37	23	NW.	NW.	258	.....	16
29.94	58	51	64	38	26	46	38	S.	NE.	132	.....	17
29.91	92	44	46	42	4	42	41	NE.	N.	173	.87	18
30.29	53	46	56	37	19	40	31	NE.	SE.	144	.....	19
30.44	87	44	50	38	12	41	39	E.	SE.	144	.17	20
30.16	91	44	49	40	9	44	43	NE.	S.	106	.72	21
29.93	94	53	58	48	10	52	42	SE.	NE.	108	.87	22
30.02	60	56	61	50	11	49	42	NW.	0	209	.03	23
30.19	62	54	70	39	31	49	43	W.	N.	106	.....	24
30.46	54	46	49	42	7	37	27	NE.	NE.	246	T.	25
30.43	60	50	61	38	23	44	37	N.	SE.	97	.....	26
30.43	53	52	66	38	28	47	38	E.	SE.	128	.....	27
30.08	66	64	78	49	29	57	52	SW.	S.	258	T.	28
30.08	80	52	57	48	9	52	48	NW.	NW.	155	.65	29
30.37	62	57	68	46	22	50	43	NW.	SW.	131	.....	30
30.11	1.945 64.8	1.546 51.5	1.791 59.7	1.297 43.2	104 16.5	1.376 45.9	1.162 38.7	..... NW.	..... NW.	5,705 190.2	4.52 .....	



TABLE X CONTINUED.—MAY, 1892.

		Mortality.																											
Day of month.	Color.	Total deaths, less those by violence.	Deaths by violence.			Deaths by ages.				Scarlet fever.	Diphtheria.	Diarrheal diseases.	Typhoid fever.	Typho-malarial fever.	Malarial fever.	Phthisis pulmonalis.	Pneumonia.	Bronchitis.	Congestion of lungs.	Pleurisy.	Nervous diseases.	Diseases of the circulatory organs.	Rheumatism.	Diseases of digestive organs.	All other diseases.	Total deaths, by color.	Total deaths.		
			Accidents and negligence.	Homicides.	Suicides.	Wounds in late war.	60 years old and over, less those by violence.	5 years old and under, less those by violence.	Under 8 days old, less those by violence.																			1 day old and under, less those by violence.	
1.....	W.	9					2	1	1							1	1	1	1		4		1		9	25			
	C.	16				1	12	6								1	4	1	1		1		5	16					
2.....	W.	5				1		3	1								1	1	1		1		1	6	11				
	C.	5					2	3															5	5					
3.....	W.	16					2	3		1								1			2		6	16	24				
	C.	7	1				1	3							1	1							3	8					
4.....	W.	9	1				4				1					1						1	4	10	20				
	C.	9	1				1	12								4					2	1	3	10					
5.....	W.	5						1	1							1				1			1	5	10				
	C.	5						1	1	1			1			2				1		1	2	5					
6.....	W.	13					5	5	2	1						1	1	1	1	4		3	13	13	20				
	C.	7					1	5		1							1	1		1		1	2	7					
7.....	W.	2																						2	2	14			
	C.	12					1	8			2				1	3	1		3	1		2	12	12					
8.....	W.	9					1	2			1					3	1		1	1		2	9	9	14				
	C.	5					2	1	1							1				1		3	5	5					
9.....	W.	6					3	2				1	1			1				2			1	6	6	6			
	C.	0																					0						
10.....	W.	8					1	1			1					2		1	1	1			1	8	11				
	C.	3					2	3								1					1		1	3					
11.....	W.	10					5	1			1	2				1	1			4			1	10	12				
	C.	2					1	1					1								1		2	2					
12.....	W.	4					2		1											1			3	4	14				
	C.	10						1	1				1			7						1	1	10					
13.....	W.	8					4	1								1		1				2	4	8	12				
	C.	4					2				1											1	1	4					
14.....	W.	8	2				4					1				1					3		3	10	16				
	C.	6						3	2							2		1					3	6					
15.....	W.	10					4	1	1	1						1			1	1		1	6	10	14				
	C.	4					1	1		1											1	2	4	4					
16.....	W.	12					5	1	1		1	1	1							2		1	6	12	15				
	C.	3					1	1	1											2			3	3					
17.....	W.	5	1				1				1					1			1	1		1	1	4	10				
	C.	4					1											1	1		2		6	6					
18.....	W.	8	1		1		5	1								1	1		1	3			1	10	18				
	C.	8					2	1							1								3	8					
19.....	W.	11	1				3									2	1			3			4	12	16				
	C.	4						2	2	2						1						1	2	4					
20.....	W.	5					1	1								1	1		1	1			2	5	11				
	C.	6					1	4												2	1		1	6					
21.....	W.	5					1									1							5	5	1				
	C.	3	1																		1		1	4					
22.....	W.	10					3	3	2	1						1	1		1	3			1	10	15				
	C.	5						2										1					2	5					
23.....	W.	4						3	1	1						1	1	1					2	4	12				
	C.	8						2					1							1			2	8					
24.....	W.	10					1	6	1		1					1	1		2				4	10	14				
	C.	4						2			1												1	4					
25.....	W.	9					1	5	2	1		1				1	1				1		5	9	13				
	C.	4																					1	4					
26.....	W.	6	2					4								3	1			1			1	8	14				
	C.	6									1					1				1			1	6					
27.....	W.	6						2			2							1					1	6	10				
	C.	4						1								1		1					1	4					
28.....	W.	12		1	2			2				1		1		1	2				1		5	15	16				
	C.	1													1								1	1					
29.....	W.	7					2	1													1		3	7	14				
	C.	7					1	2													2		5	7					
30.....	W.	5	1													1	1						3	6	10				
	C.	4											1					1					1	4					
31.....	W.	9			1		2	1					1				1				3		2	10	14				
	C.	4					1	1	.....														3	4					
Totals and means	W.	246	9	1	4	1	65	57	13	3	4	13	4	4	1	0	31	14	7	4	1	44	1	17	81	261			
	C.	170	3	0	0	0	25	62	8	2	0	2	4	4	0	3	31	9	10	4	0	21	15	3	9		55	173	434

TABLE X CONTINUED.—MAY, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.17	62	62	76	49	27	57	51	S.	S.	335	.....	1
29.98	69	71	87	60	27	61	57	S.	S.	236	.07	2
30.00	73	72	86	58	28	66	62	SW.	S.	127	T.	3
30.09	73	74	89	58	31	63	60	E.	S.	133	.....	4
30.20	56	66	72	60	12	54	46	E.	S.	195	.....	5
29.92	74	70	88	52	36	62	58	S.	NW.	169	.04	6
30.01	55	64	72	57	15	50	43	NW.	NW.	316	T.	7
30.18	54	54	62	47	15	45	36	NW.	N.	230	.....	8
30.27	58	58	71	44	27	50	44	N.	W.	88	.....	9
30.11	75	60	71	49	22	54	50	E.	S.	126	.10	10
29.76	75	64	72	57	15	56	51	S.	NW.	141	.47	11
29.97	59	56	64	49	15	51	45	NW.	NW.	217	.....	12
30.25	66	58	68	47	21	53	47	NW.	E.	149	.....	13
30.22	93	59	63	55	8	56	56	SE.	NE.	160	.58	14
30.07	89	70	85	56	29	62	62	N.	NE.	117	.01	15
30.11	56	72	81	63	18	62	54	O.	N.	169	.....	16
30.21	56	62	75	49	26	57	50	N.	S.	106	.....	17
29.99	76	65	75	55	20	62	59	S.	SE.	134	.01	18
29.68	84	70	76	63	13	62	60	SE.	NW.	219	.42	19
29.86	54	64	75	53	22	56	49	SW.	S.	120	T.	20
29.88	91	56	59	53	6	54	53	NE.	NW.	169	.21	21
29.92	83	54	58	50	8	50	48	W.	E.	84	.03	22
29.74	65	54	61	47	14	48	42	NW.	W.	181	.04	23
29.98	56	58	70	45	25	50	42	NW.	SW.	180	.....	24
29.93	56	66	79	52	27	57	50	SW.	S.	198	.....	25
29.75	83	70	81	59	22	61	58	S.	NE.	123	.92	26
29.76	64	58	63	53	10	51	44	NW.	NW.	222	1.17	27
30.03	58	58	70	47	23	52	46	W.	S.	167	.....	28
29.98	74	64	73	56	17	62	59	S.	S.	186	T.	29
30.07	82	72	80	65	15	66	64	SW.	S.	124	.....	30
30.16	77	74	85	62	23	69	66	S.	S.	131	.....	31
30.01	69.2	63.8	73.8	53.9	19.9	56.7	52.0	S.	S.	5,252	4.07	

TABLE X CONTINUED.—MAY, 1892.

[illegible]



TABLE X CONTINUED.—MAY, 1892.

Meteorological conditions.												
Daily mean barometer.	Relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.17	62	62	76	49	27	57	51	S.	S.	335	.....	1
29.98	69	74	87	60	27	61	57	S.	S.	236	.07	2
30.00	73	72	86	58	28	66	62	SW.	S.	127	T.	3
30.09	73	74	89	58	31	63	60	E.	S.	133	.....	4
30.20	56	66	72	60	12	54	46	E.	S.	195	.....	5
29.92	74	70	88	52	36	62	58	S.	NW.	169	.04	6
30.01	55	64	72	57	15	50	43	NW.	NW.	316	T.	7
30.18	54	54	62	47	15	45	36	NW.	N.	230	.....	8
30.27	58	58	71	44	27	50	44	N.	W.	88	.....	9
30.11	75	60	71	49	22	54	50	E.	S.	126	.10	10
29.76	75	64	72	57	15	56	51	S.	NW.	141	.47	11
29.97	59	56	64	49	15	51	45	NW.	NW.	217	.....	12
30.25	66	58	68	47	21	53	47	NW.	E.	149	.....	13
30.22	93	59	63	55	8	56	56	SE.	NE.	160	.58	14
30.07	89	70	85	56	29	62	62	N.	NE.	117	.01	15
30.11	56	72	81	63	18	62	54	O.	N.	169	.....	16
30.21	56	62	75	49	26	57	50	N.	S.	106	.....	17
29.99	76	65	75	55	20	62	59	S.	SE.	134	.01	18
29.68	84	70	76	63	13	62	60	SE.	NW.	219	.42	19
29.86	54	64	75	53	22	56	49	SW.	S.	120	T.	20
29.88	91	56	59	53	6	54	53	NE.	NW.	169	.21	21
29.92	83	54	58	50	8	50	48	W.	E.	84	.03	22
29.74	65	54	61	47	14	48	42	NW.	W.	181	.04	23
29.98	56	58	70	45	25	50	42	NW.	SW.	180	.....	24
29.93	56	66	79	52	27	57	50	SW.	S.	198	.....	25
29.75	83	70	81	59	22	61	58	S.	NE.	123	.92	26
29.76	64	58	63	53	10	51	44	NW.	NW.	222	1.17	27
30.03	58	58	70	47	23	52	46	W.	S.	167	.....	28
29.98	74	64	73	56	17	62	59	S.	S.	186	T.	29
30.07	82	72	80	65	15	66	64	SW.	S.	124	.....	30
30.16	77	74	85	62	23	69	66	S.	S.	131	.....	31
30.01	69.2	63.8	73.8	53.9	19.9	56.7	52.0	S.	S.	5,252	4.07	

TABLE X. CONTINUED.—JUNE, 1892.

[illegible]

TABLE X CONTINUED.—JUNE, 1892.

Meteorological conditions.												
Daily mean barometer.	Mean relative humidity.	Exposed bulb.				Mean wet bulb.	Mean dew-point.	Direction of wind.		Total movement of wind.	Rainfall.	Day of month.
		Daily mean.	Maximum.	Minimum.	Range.			8 a. m.	8 p. m.			
30.21	74	74	84	68	16	70	66	S.	S.	215	.....	1
30.07	72	76	84	69	15	70	66	SW.	S.	212	.....	2
30.06	74	78	86	69	17	70	66	SW.	S.	173	.....	3
30.22	77	76	84	69	15	68	66	S.	S.	196	T.	4
30.18	83	76	83	68	15	70	68	S.	S.	186	.06	5
30.04	79	76	85	68	17	71	68	S.	SW.	112	.....	6
30.16	74	74	83	64	19	67	64	NE.	E.	180	.....	7
30.09	92	72	80	63	17	67	66	NE.	SE.	117	.06	8
29.90	90	73	81	65	16	66	66	S.	SW.	144	.12	9
29.97	86	68	74	62	12	64	63	N.	NE.	158	.07	10
30.10	64	66	79	53	26	60	55	NE.	S.	81	.....	11
30.03	64	70	83	57	26	64	59	S.	S.	94	.....	12
30.08	66	78	90	65	25	69	65	S.	S.	99	.....	13
29.95	70	80	91	68	23	70	67	S.	S.	125	T.	14
30.01	66	77	86	68	18	70	66	NE.	SE.	165	.....	15
30.12	80	78	87	69	18	73	72	S.	S.	164	.....	16
30.11	76	81	90	72	18	72	70	S.	W.	161	.....	17
30.10	75	78	90	67	23	72	70	SE.	SE.	108	T.	18
29.97	73	80	88	72	16	72	69	S.	SW.	199	.22	19
29.85	80	80	87	73	14	73	70	SW.	S.	198	.03	20
29.83	74	80	90	71	19	73	70	SW.	SW.	158	.....	21
29.85	64	81	90	72	18	73	69	W.	W.	147	.....	22
29.84	74	82	94	70	24	74	72	S.	S.	114	.41	23
29.92	75	80	86	74	12	74	71	NW.	S.	132	.01	24
29.94	69	78	84	72	12	68	64	NW.	N.	174	T.	25
30.00	68	75	84	66	18	66	61	N.	E.	85	.....	26
29.75	86	76	85	67	18	70	68	S.	SW.	186	.93	27
29.84	64	72	77	68	9	62	58	NW.	SW.	144	.02	28
30.00	78	74	83	65	18	68	66	SW.	S.	156	.....	29
30.00	84	76	87	66	21	68	66	S.	SW.	167	.66	30
30.00	75.0	76.2	85.2	67.3	17.8	69.1	66.2	S.	S.	4,550 151.7	2.59 .086	



## 774 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XI.—Showing deaths, arranged according to age, sex, and color, with percentages, for sixteen years ending June 30, 1892.

## WHITE MALES.

Sixteen years ending June 30, 1892.	Total deaths.	5 years and over.		20 years and over.		40 years and over.	
		Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.
1877 .....	1,148	725	63.15	633	55.14	432	37.63
1878 .....	1,125	683	60.71	568	50.49	380	33.78
1879 .....	1,130	689	60.97	562	49.73	384	33.98
1880 .....	1,097	711	64.81	641	58.43	459	41.84
1881 .....	1,179	791	67.10	709	60.14	509	43.17
1882 .....	1,254	854	68.10	751	59.88	541	43.14
1883 .....	1,196	820	68.53	709	59.28	533	44.57
1884 .....	1,322	885	66.94	764	57.79	572	43.12
1885 .....	1,375	957	69.67	841	61.16	601	43.71
1886 .....	1,312	949	72.33	841	64.10	610	46.49
1887 .....	1,343	940	69.84	845	62.91	596	44.38
1888 .....	1,456	978	67.14	875	60.06	651	44.78
1889 .....	1,458	969	66.46	873	60.00	648	44.44
1890 .....	1,631	1,155	70.81	1,038	63.64	742	45.49
1891 .....	1,697	1,201	70.77	1,092	64.35	830	48.91
1892 .....	1,847	1,302	70.50	1,175	63.56	866	46.89
Total deaths and mean percentages thereto .....	21,570	14,609	67.73	12,917	59.90	9,354	43.36

## WHITE FEMALES.

1877 .....	1,039	621	59.77	522	50.24	339	32.63
1878 .....	1,041	653	62.73	541	51.97	354	32.61
1879 .....	1,066	647	60.69	535	50.19	334	31.33
1880 .....	988	592	59.92	529	53.54	351	35.53
1881 .....	1,026	716	69.78	611	59.55	404	39.38
1882 .....	1,099	731	66.52	631	57.42	410	37.31
1883 .....	1,074	728	67.78	632	58.85	439	40.88
1884 .....	1,254	801	63.88	687	54.78	465	37.08
1885 .....	1,235	832	67.37	705	57.08	489	39.50
1886 .....	1,130	803	71.06	702	62.12	458	40.53
1887 .....	1,141	800	70.20	697	61.08	488	42.77
1888 .....	1,322	898	67.92	791	59.83	530	40.09
1889 .....	1,255	845	67.33	733	58.40	511	40.71
1890 .....	1,303	883	67.76	781	59.94	525	40.29
1891 .....	1,409	1,011	71.75	897	63.66	607	43.08
1892 .....	1,595	1,134	71.10	990	62.07	686	43.01
Total deaths and mean percentages thereto .....	18,977	12,695	66.90	10,984	57.88	7,390	38.94
Total whites .....	40,547	27,304	67.34	23,901	58.94	16,744	41.29

## COLORED MALES.

1877 .....	988	417	42.20	337	34.11	206	20.85
1878 .....	1,007	394	39.13	311	30.88	197	19.56
1879 .....	1,051	430	40.91	348	33.11	209	19.89
1880 .....	1,025	407	39.71	325	31.71	186	18.15
1881 .....	921	424	46.04	347	37.68	210	22.80
1882 .....	1,062	500	47.08	402	37.85	245	23.07
1883 .....	1,004	504	50.20	397	39.54	253	25.20
1884 .....	1,081	481	44.50	381	35.24	242	22.39
1885 .....	1,210	587	48.51	476	39.34	300	24.70
1886 .....	1,077	574	53.29	458	42.52	297	27.57
1887 .....	1,079	536	49.67	427	39.60	270	25.02
1888 .....	1,049	536	51.09	440	41.94	301	28.69
1889 .....	1,180	583	49.41	475	40.25	289	24.50
1890 .....	1,292	682	52.79	532	41.17	352	27.24
1891 .....	1,295	696	53.75	557	43.01	352	27.18
1892 .....	1,369	740	54.00	600	43.82	382	27.90
Total deaths and mean percentages thereto .....	17,690	8,491	48.00	6,813	38.51	4,291	24.25

TABLE XI.—Showing deaths, arranged according to age, sex, and color, etc.—Continued.

## COLORED FEMALES.

Sixteen years ending June 30, 1892.	Total deaths.	5 years and over.		20 years and over.		40 years and over.	
		Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.	Number of deaths.	Percentage to total deaths.
1877	1,033	518	50.45	396	38.33	221	21.30
1878	1,058	504	47.64	374	35.35	208	19.66
1879	1,062	523	49.25	424	39.92	230	21.66
1880	1,096	537	49.00	434	39.60	237	21.62
1881	1,010	525	51.91	448	44.36	231	22.87
1882	1,156	613	53.03	490	42.39	282	24.30
1883	1,012	540	53.36	422	41.70	243	24.01
1884	1,157	607	52.46	466	40.28	261	22.56
1885	1,178	664	56.37	510	43.29	319	27.80
1886	1,155	652	56.45	516	44.67	297	25.71
1887	1,102	598	54.26	459	41.65	284	25.77
1888	1,213	686	56.60	547	41.10	303	25.00
1889	1,259	666	52.90	509	40.43	293	23.27
1890	1,338	776	57.16	594	44.39	341	25.48
1891	1,319	746	56.55	609	46.17	368	27.89
1892	1,287	737	57.29	590	45.84	357	27.74
Total deaths and mean percentages thereto.	18,435	9,992	54.20	7,788	42.24	4,475	24.27
Total colored	36,125	18,483	51.16	14,601	40.42	8,766	24.26
Grand total and mean	76,672	45,787	59.72	38,502	50.21	25,510	33.27

TABLE XII.—Deaths and average ages in twelve years from July 1, 1881, to June 30, 1892, inclusive.

## WHITE.

Year.	All ages.			5 years and over.			20 years and over.			40 years and over.		
	Total deaths.	Average.			Total deaths.	Average.			Total deaths.	Average.		
		y.	m.	d.		y.	m.	d.		y.	m.	d.
1881	2,205	32	0	1	1,507	46	3	0	1,320	51	3	8
1882	2,352	32	1	6	1,585	46	7	5	1,382	51	7	23
1883	2,270	32	4	22	1,548	45	9	2	1,341	51	10	29
1884	2,576	31	1	28	1,686	46	8	13	1,451	52	5	15
1885	2,610	32	3	4	1,789	46	2	17	1,546	51	3	17
1886	2,442	34	6	19	1,752	46	10	22	1,543	51	8	20
1887	2,484	34	1	17	1,740	47	7	15	1,542	52	3	6
1888	2,778	33	2	28	1,876	48	0	28	1,666	52	10	12
1889	2,713	32	8	6	1,814	47	11	2	1,606	52	6	5
1890	2,934	33	8	0	2,038	47	3	9	1,819	51	11	29
1891	3,106	34	7	25	2,212	48	4	11	1,989	52	8	5
1892	3,442	34	6	7	2,436	48	2	16	2,165	52	10	1
Totals and mean	31,913	33	1	11	21,983	47	1	1	19,370	52	1	14

## COLORED.

		y.	m.	d.		y.	m.	d.		y.	m.	d.		y.	m.	d.
1881	1,931	20	11	6	949	41	9	13	795	47	8	10	441	63	1	4
1882	2,218	21	5	23	1,113	41	0	3	892	48	5	16	527	61	11	16
1883	2,016	21	9	17	1,044	40	8	23	821	48	10	7	496	61	2	27
1884	2,238	19	11	13	1,088	40	5	23	847	49	1	3	507	61	2	3
1885	2,388	22	7	29	1,249	40	6	18	986	50	0	22	618	62	11	2
1886	2,232	22	11	17	1,226	41	4	4	974	47	6	20	594	62	0	14
1887	2,181	22	0	7	1,134	41	3	22	886	49	4	16	554	59	6	23
1888	2,262	22	11	3	1,222	41	9	22	987	48	8	2	604	60	8	13
1889	2,439	21	11	24	1,249	40	11	8	984	47	6	13	582	60	3	22
1890	2,630	22	10	6	1,458	40	1	20	1,126	47	3	2	693	59	5	10
1891	2,614	22	9	29	1,442	40	6	17	1,166	47	6	1	720	58	11	27
1892	2,656	23	4	23	1,477	40	9	2	1,190	48	0	28	739	58	11	6
Totals and mean	27,805	22	1	25	14,651	40	11	12	11,654	48	3	24	7,075	60	10	11
Aggregate.	59,718	27	7	18	36,634	44	0	6	31,024	50	2	4	20,786	61	3	11

## 776 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XIII.—Deaths under 1 month of age from convulsions and trismus nascentium, by age, months, and sanitary divisions, for year ending June 30, 1892.

## BY AGE.

	Convulsions.					Trismus nascentium.				
	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.	
Under 1 day .....	1		1	2	4					
1 to 2 days .....	1	1	1	1	4	1				1
2 to 3 days .....	1	1		1	3	2	1			3
3 to 4 days .....	1		4	1	6	1				1
4 to 5 days .....				3	3					
5 to 6 days .....	2	2	2	2	8	1	1	2	1	5
6 to 7 days .....	1	2	2	2	7	2		2	1	5
7 to 8 days .....	4	1	3	4	12		1	8	1	10
8 to 9 days .....			1	2	3			2	2	4
9 to 10 days .....			1	3	4		1	3	1	5
10 to 11 days .....			4	1	5			2	1	3
11 to 12 days .....		3		1	4					
12 to 13 days .....	1		1	1	3	1				1
13 to 14 days .....	1		1		2					
2 to 3 weeks .....	1		1	3	5			1		1
3 to 4 weeks .....		1	3	4	8	1				1
Total .....	14	11	25	31	81	9	4	20	7	40

## BY MONTHS.

July .....		3	1	6	10					
August .....	1		5	1	7	1		2		3
September .....	2	2	2	4	10	1		4	1	6
October .....	1	1	2	2	6		1	3		4
November .....				2	2			4	2	6
December .....	2	2	1	2	7	1		1		2
January .....			1	5	6	3		1	1	5
February .....	3		5	1	9				1	1
March .....	2			2	4		1	1		2
April .....	1		3	3	7	1			1	2
May .....	2	2	3	1	8		1	3	1	5
June .....		1	2	2	5	2	1	1		4
Total .....	14	11	25	31	81	9	4	20	7	40

## BY SANITARY DIVISIONS.

First sanitary division .....	1			2	3	2				2
Second sanitary division .....		1			1	2		1		3
Third sanitary division .....	3			2	5			1	2	3
Fourth sanitary division .....			1	1	2			4		4
Fifth sanitary division .....		3	6	3	12	1	2	3		6
Sixth sanitary division .....	1				1	2				2
Seventh sanitary division .....	1		5	9	15	1		1	1	3
Eighth sanitary division .....	2	2	3	3	10		1	1	1	3
Ninth sanitary division .....	2	2	3	3	10			3		3
Tenth sanitary division .....	3	2	1	4	10	1			1	1
Eleventh sanitary division .....			1	3	4		1	6	2	9
Twelfth sanitary division .....	1	1	5	1	8					
Total .....	14	11	25	31	81	9	4	20	7	40



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 777

TABLE XIV.—STILLBIRTHS.—Cause, legitimacy, period of utero gestation, and by whom reported, for year ending June 30, 1892.

	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Legitimacy:					
Legitimate.....	99	70	102	78	349
Illegitimate.....	6	7	58	47	118
Total.....	105	77	160	125	467
Period of utero gestation:					
Four months and under.....	9	6	9	9	33
Fifth month.....	8	3	0	11	20
Sixth month.....	12	7	23	15	57
Seventh month.....	10	6	25	17	58
Eighth month.....	16	13	20	20	69
Ninth month.....	49	41	76	60	226
Tenth month.....	1	1	1	1	4
Total.....	105	77	160	125	467
By whom reported:					
Physicians.....	91	69	106	74	340
Midwives.....	3	3	17	18	41
Coroner.....	11	5	37	33	86
Total.....	105	77	160	125	467
Causes:					
Asphyxia.....	2	3			5
Contracted pelvis.....	2	1			3
Degeneration of placenta.....			1	1	2
Ergotism.....				1	1
Enlarged fetus.....		1			1
Fall of mother.....	4	4	6	5	19
Fright.....	1	1		2	4
Grief.....		1			1
Hydrocephalus.....	1				1
Hydrops amnii.....	2				2
Instrumental labor.....			1	4	5
Ill-health of mother.....	6	8	7	6	27
Immaturity of mother (under 14 years old).....				1	1
Maceration and fetal degeneration.....	1		2	3	6
Monstrosity.....		1			1
Overexertion by mother.....	2	1	25	9	37
Placental apoplexy.....	2	2			4
Placenta previa.....	5	3	3	1	12
Predisposition to abortion.....	1	1	3		5
Premature birth.....	4	1	21	23	49
Presentation:					
Breech.....	1	1	2	1	5
Face.....	1				1
Foot.....			2		2
Shoulder.....		1			1
Transverse.....	4	1			5
Pressure on cord.....	2	3	1		6
Protracted labor.....	8	5	8	2	23
Prolapsus funis.....		1			1
Rupture of amnion.....	1			1	2
Shock.....		2			2
Syphilis.....		1	2	5	8
Strangulation and version of cord.....	3	1	2	3	9
Twin parturition.....			1	3	4
Umbilical hernia.....	1	1			2
Uræmic convulsions.....			2	2	4
Work at sewing machine.....			1		1
Unknown and not stated.....	51	32	67	52	202
Total.....	105	77	160	125	467

## 778 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XV.—BIRTHS.—Statement, by months and quarters, for the year ending June 30, 1892.

Months and quarters.	Total.	White.		Colored.		Twins.		Trip-lets.		Illegiti-mates.		Attended by physi-cians.		Attended by mid-wives and others.	
		Male.	Female.	Male.	Female.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
1891.															
July .....	370	112	96	80	82	4	4	...	...	1	38	132	57	76	105
August .....	358	107	95	82	74	6	6	...	...	5	40	134	46	68	110
September .....	444	120	146	90	88	2	...	...	...	6	47	145	47	121	131
Total first quarter....	1,172	339	337	252	244	12	10	...	...	12	125	411	150	265	346
October .....	405	125	121	78	81	2	2	...	...	4	36	146	46	100	113
November .....	344	92	107	66	79	4	2	...	...	3	45	108	48	91	97
December .....	366	114	84	87	81	4	2	...	3	4	42	105	48	93	120
Total second quarter...	1,115	331	312	231	241	10	6	...	3	11	123	359	142	284	330
1892.															
January .....	360	112	94	73	81	...	4	...	...	8	41	117	42	89	112
February .....	394	124	107	91	72	6	4	...	...	6	40	150	52	81	111
March .....	393	123	93	95	82	6	4	...	...	4	53	125	64	91	113
Total third quarter...	1,147	359	294	259	235	12	12	...	...	18	134	392	158	261	336
April .....	390	116	111	82	81	4	6	...	3	10	45	159	72	68	91
May .....	376	126	105	74	71	6	2	...	...	5	38	145	49	86	96
June .....	414	107	111	106	90	8	4	...	...	11	54	133	51	85	145
Total fourth quarter ..	1,180	349	327	262	242	18	12	...	3	26	137	437	172	239	332
Total by sex and color.	4,614	1,378	1,270	1,004	962	52	40	...	6	67	519	1,599	622	1,049	1,344
Total by color .....	.....	2,648		1,966		52	40	...	6	67	519	.....	.....	.....	.....
Grand total for year .		4,614				94		6		586		2,221		2,393	

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 779

TABLE XVI.—BIRTHS.—Number of births (reported) in different hospitals during the year ended June 30, 1892.

Months.	Color.	Sex.	Columbia Hospital.	Freedmen's Hospital.	Washington Asylum Hospital.	Homeopathic Hospital.	St. Ann's Infant Asylum.	Wayland Seminary.
1891.								
July .....	White .....	Male .....	3	1				
		Female .....	2					
	Colored .....	Male .....	10	8				
		Female .....	2	8				
August .....	White .....	Male .....	5					
		Female .....	4					
	Colored .....	Male .....	6	12				
		Female .....	4	7				
September .....	White .....	Male .....	4					
		Female .....	3	1	1			
	Colored .....	Male .....	12	5	1			
		Female .....	4	6				
October .....	White .....	Male .....	2			2		
		Female .....	3					
	Colored .....	Male .....	2	10				
		Female .....	4	9	1			
November .....	White .....	Male .....	1					
		Female .....	1	1				
	Colored .....	Male .....	3	9				
		Female .....	14	5				
December .....	White .....	Male .....	1					
		Female .....						
	Colored .....	Male .....	5	3	2			
		Female .....	5	5	1			
1892.								
January .....	White .....	Male .....	4	1	1		1	
		Female .....	2		1		1	1
	Colored .....	Male .....	6	3				
		Female .....	3	13				
February .....	White .....	Male .....	2			1	1	
		Female .....	8			1	1	
	Colored .....	Male .....	9	8	2			
		Female .....	5	5	1			
March .....	White .....	Male .....	7	1				
		Female .....	2					
	Colored .....	Male .....	11	14	1			
		Female .....	8	8	1			
April .....	White .....	Male .....	9			1		
		Female .....	4	2		1		
	Colored .....	Male .....	6	13		1		
		Female .....	7	8	1		1	
May .....	White .....	Male .....	5		1		1	
		Female .....	1	1				
	Colored .....	Male .....	8	7				
		Female .....	5	9				
June .....	White .....	Male .....	2				1	
		Female .....	5			1	1	
	Colored .....	Male .....	7	13	2			
		Female .....	4	11	2			

## RECAPITULATION.

Institutions.	Total.	White.	Colored.	Male.	Female.
Columbia Hospital .....	231	81	150	130	101
Freedmen's Hospital .....	207	8	199	108	99
Washington Asylum Hospital .....	19	4	15	10	9
Homeopathic Hospital .....	8	7	1	5	3
St. Ann's Asylum .....	8	7	1	4	4
Wayland Seminary .....	1	1			1
Total .....	474	108	366	257	217



## 780 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XVII.—MARRIAGES (REPORTED).—*Number of brides and grooms year ended June 30, 1892.*

Number of marriages of grooms.	Number of marriages of brides.			
	First marriage.	Second marriage.	Third marriage.	Total.
Whites:				
First marriage.....	937	44	3	984
Second marriage.....	90	30	1	121
Third marriage.....	3	2	1	6
Total.....	1,030	76	5	1,111
Colored:				
First marriage.....	262	16	1	279
Second marriage.....	27	22	3	52
Third marriage.....	4	2		6
Total.....	293	40	4	337
Grand total.....	1,323	116	9	1,448

TABLE XVIII.—MARRIAGES (REPORTED).—*Nationality of brides and grooms of white race year ended June 30, 1892.*

Birthplace of grooms.	Birthplace of brides.													
	United States.	Germany.	England.	Scotland.	Ireland.	Canada.	Russian Poland.	Sweden.	Denmark.	Switzerland.	Italy.	France.	China.	Total.
United States .....	985	10	2	1	2	1	.....	1	.....	.....	1	.....	.....	1,003
Germany .....	20	18	.....	.....	.....	.....	.....	1	.....	1	.....	2	.....	42
England .....	20	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	22
Scotland .....	4	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Ireland .....	9	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	11
Canada .....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
Russian Poland .....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	8
Sweden .....	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	3
Denmark .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Switzerland .....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Italy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	3
France .....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
China .....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Total .....	1,050	32	2	2	3	2	8	4	1	1	4	2	.....	1,111

TABLE XIX.—MARRIAGES (REPORTED).—*Ages of brides and grooms of white race year ended June 30, 1892.*

Ages of grooms.	Ages of brides							
	Under 20 years.	20 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	70 to 80 years.
Under 20 years.....	9							9
20 to 25 years.....	206	218	20	1	1			446
25 to 30 years.....	62	165	90	13	1			331
30 to 40 years.....	23	76	69	48	7			223
40 to 50 years.....	5	15	10	25	9	2	1	67
50 to 60 years.....		2		10	10	1		23
60 to 70 years.....		1	1	3	4	1		10
70 to 80 years.....				1			1	2
Total.....	305	477	190	101	32	4	1	1,111

TABLE XX.—MARRIAGES (REPORTED).—*Ages of brides and grooms of colored race year ended June 30, 1892.*

Ages of grooms.	Ages of brides.							
	Under 20 years.	20 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	70 to 80 years.
Under 20 years.....	4	2						6
20 to 25 years.....	54	82	7	1				154
25 to 30 years.....	19	34	15	3				71
30 to 40 years.....	5	17	15	16	1			54
40 to 50 years.....	2	4	7	15	8	2		38
50 to 60 years.....			2	1	4	2		10
60 to 70 years.....					1	1	1	3
70 to 80 years.....						1		1
Total.....	84	149	40	36	14	6	2	337

TABLE XXI.—Deaths and death rates for the last seventeen calendar years, ended December 31, 1891.

Years.	January.					February.					March.				
	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.
	Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.	
1875 ..	211	24.33	186	46.65	31.75	176	22.05	209	55.71	32.81	239	27.54	193	47.36	33.89
1876 ..	160	17.99	137	32.32	22.61	148	17.48	162	40.17	24.58	192	21.58	173	40.82	27.79
1877 ..	182	19.94	147	33.36	24.31	172	20.47	175	43.14	27.86	199	21.81	168	36.24	27.12
1878 ..	178	19.01	165	36.03	24.60	158	18.34	128	39.35	22.28	198	21.15	148	32.31	24.82
1879 ..	212	22.07	162	34.03	26.04	161	18.21	174	39.70	25.33	180	18.74	197	41.38	26.24
1880 ..	168	17.65	156	31.51	21.89	193	20.43	181	38.45	20.57	155	15.73	198	40.00	23.85
1881 ..	202	19.98	138	26.81	22.29	176	18.91	186	39.25	25.73	187	18.50	185	35.95	24.39
1882 ..	168	16.20	165	30.84	21.18	171	17.91	196	39.79	25.36	218	21.02	170	31.77	24.68
1883 ..	182	17.29	158	28.87	21.25	170	17.54	158	31.59	22.27	236	22.42	196	35.81	27.00
1884 ..	252	23.14	201	34.81	27.18	202	19.51	200	36.42	25.37	233	21.39	181	31.34	24.34
1885 ..	196	18.00	182	31.52	22.68	232	23.13	213	40.06	29.00	253	23.23	214	37.05	28.02
1886 ..	225	19.85	153	26.61	22.13	196	18.79	203	38.35	25.37	246	21.71	192	33.39	25.64
1887 ..	210	16.80	159	25.44	19.68	165	13.20	145	23.20	20.42	213	17.04	170	27.20	20.42
1888 ..	221	15.80	187	28.65	19.58	251	17.72	182	27.30	20.00	292	20.60	236	35.40	25.34
1889 ..	222	15.67	208	31.20	20.64	206	14.54	177	25.30	18.38	260	18.35	210	31.50	22.56
1890 ..	311	22.00	287	43.00	28.75	210	14.82	184	27.60	18.91	260	18.35	225	33.75	23.28
1891 ..	220	15.08	194	27.39	19.10	235	16.11	179	25.27	23.72	306	20.98	286	40.40	27.32
Total.	3,520	.....	2,985	.....	.....	3,222	.....	3,052	.....	.....	3,867	.....	3,342	.....	.....
Mean.	207.0	18.86	176.7	32.30	23.27	189.5	18.18	179.5	36.92	24.00	227.5	20.60	196.6	35.98	25.70

Years.	April.					May.					June.				
	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.
	Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.	
1875 ..	174	20.07	168	41.23	26.83	144	16.61	159	39.02	23.71	210	24.22	220	53.99	33.74
1876 ..	143	16.08	153	36.12	22.54	141	15.85	138	32.57	21.24	253	28.44	238	56.15	37.39
1877 ..	148	16.22	145	32.91	21.65	156	17.10	132	29.96	21.28	187	20.49	201	45.62	28.67
1878 ..	145	15.49	174	37.99	22.70	190	20.30	184	40.17	26.83	210	22.43	226	49.34	31.27
1879 ..	176	18.33	158	33.19	23.25	148	15.41	148	31.09	20.61	231	24.05	213	44.74	30.91
1880 ..	160	16.24	165	33.33	21.95	165	16.75	183	36.97	23.51	220	22.33	238	48.08	30.94
1881 ..	191	18.90	194	37.69	25.24	175	17.31	121	23.51	19.40	170	16.82	150	29.15	20.98
1882 ..	178	17.16	160	29.90	21.50	155	14.95	171	32.42	29.72	200	19.29	190	35.51	24.81
1883 ..	219	20.81	162	29.60	23.81	203	19.29	153	27.75	22.25	199	18.91	169	30.88	23.00
1884 ..	225	21.42	175	30.30	24.00	177	16.25	172	29.78	20.94	234	21.48	209	36.19	26.58
1885 ..	210	19.28	220	38.10	25.60	181	16.62	207	35.84	23.28	248	22.77	261	45.19	30.54
1886 ..	184	16.32	194	33.74	22.13	158	13.94	170	29.69	19.26	193	17.03	195	33.91	22.71
1887 ..	182	14.56	173	27.68	18.93	159	12.72	172	27.52	17.65	262	20.96	237	37.92	26.61
1888 ..	211	14.90	196	29.40	19.53	185	13.06	162	24.30	16.60	247	17.40	218	32.70	22.32
1889 ..	213	15.03	189	28.35	19.29	182	12.84	164	24.60	16.60	256	18.07	228	34.20	23.23
1890 ..	198	14.00	195	29.35	18.86	238	19.75	217	32.55	21.84	307	21.67	289	43.35	28.60
1891 ..	387	26.54	310	43.76	32.17	227	15.54	230	32.47	21.10	306	20.98	247	34.87	25.52
Total.	3,344	.....	3,131	.....	.....	2,984	.....	2,983	.....	.....	3,933	.....	3,729	.....	.....
Mean.	199.3	17.72	184.2	33.68	22.88	175.5	16.13	175.5	31.19	22.65	231.3	21.02	219.3	40.70	27.53



TABLE XXI.—Deaths and death rates for the last seventeen years—Continued.

Years.	July.					August.					September.				
	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.
	Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.	
1875	223	25.46	203	54.63	32.77	227	25.81	218	52.12	34.01	162	18.68	194	47.01	27.93
1876	298	32.78	269	57.62	42.24	209	27.88	188	43.39	29.44	172	19.34	177	41.74	26.57
1877	224	24.07	252	46.15	34.59	206	22.25	208	46.42	30.11	164	17.97	154	34.95	23.38
1878	222	23.12	251	50.00	33.14	201	20.94	224	47.93	29.77	156	16.66	147	32.10	21.73
1879	250	25.49	242	45.47	33.40	182	18.47	179	36.33	24.56	154	16.04	171	35.92	22.62
1880	192	19.15	179	49.08	24.53	154	15.23	171	33.55	21.37	197	19.99	168	33.94	24.66
1881	236	22.77	245	29.44	30.77	208	20.07	226	42.90	27.76	201	19.84	202	39.12	26.35
1882	230	21.70	214	36.01	27.63	165	15.54	176	32.05	21.17	141	13.57	163	30.36	18.23
1883	300	28.14	210	30.88	31.39	198	18.41	201	36.02	24.57	168	15.76	168	30.10	20.68
1884	223	20.44	202	36.19	25.50	245	22.40	199	34.46	26.64	236	21.67	190	32.90	25.56
1885	323	28.50	272	47.30	34.82	210	18.53	183	32.69	22.13	194	17.12	169	29.39	21.25
1886	218	18.64	222	38.06	25.14	220	18.86	208	34.80	24.17	247	21.17	192	32.91	25.09
1887	310	28.13	235	37.60	29.07	224	17.92	188	30.08	21.98	233	18.64	200	32.00	23.10
1888	272	19.20	243	36.45	24.72	264	18.63	279	41.85	26.06	214	15.10	210	31.50	20.35
1889	277	19.25	255	38.25	25.33	274	19.34	232	34.80	24.28	210	14.82	202	30.30	19.77
1890	252	17.79	237	35.55	23.47	220	15.53	203	30.42	20.30	248	17.51	195	29.25	21.26
1891	290	19.88	260	36.70	25.38	281	19.27	227	32.05	23.45	249	17.06	228	32.19	22.02
Total	4,340		3,991			3,688		3,510			3,346		3,030		
Mean	255.3	23.20	234.8	41.76	29.65	216.9	19.65	206.5	37.75	25.47	196.8	17.65	178.2	33.88	23.00

Years.	October.					November.					December.				
	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.	White.		Colored.		Annual death rate for total population.
	Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.		Deaths.	Annual death rate.	Deaths.	Annual death rate.	
1875	147	16.95	170	41.72	24.87	143	16.49	142	34.85	22.36	147	16.95	146	35.83	22.99
1876	164	18.44	167	39.40	25.20	135	15.19	119	28.08	19.34	105	18.55	133	31.38	22.69
1877	181	19.83	152	34.59	24.61	155	16.99	129	29.28	20.99	157	17.20	145	32.91	22.32
1878	185	19.76	146	31.88	23.74	155	16.56	141	30.79	21.23	169	18.05	152	33.19	23.02
1879	129	13.43	127	28.68	17.82	147	15.31	130	27.31	19.28	162	16.87	151	31.72	24.79
1880	188	19.08	176	35.55	24.59	162	16.44	134	27.07	20.00	211	21.41	129	26.05	22.97
1881	234	23.10	179	34.67	27.00	211	20.83	169	32.73	23.76	173	17.08	145	28.08	20.79
1882	180	17.32	176	32.78	22.50	162	15.59	154	28.69	20.05	183	17.61	137	25.32	20.20
1883	151	14.16	133	23.83	17.48	182	17.07	175	31.34	21.98	254	23.82	213	37.84	28.69
1884	193	17.72	175	30.30	22.08	204	18.73	148	25.63	21.12	188	17.26	177	30.65	21.90
1885	159	14.03	166	28.87	19.02	158	14.68	169	29.39	19.14	195	17.21	161	28.00	20.35
1886	221	18.94	188	32.23	23.37	194	16.63	166	28.40	20.57	192	16.43	154	26.34	19.77
1887	217	17.36	141	22.56	18.76	175	14.00	168	26.88	18.29	212	16.96	149	23.84	19.25
1888	227	16.02	201	30.15	20.54	189	13.34	148	22.20	16.17	208	14.68	142	21.30	17.98
1889	240	16.94	164	24.60	19.39	194	13.69	173	25.95	17.61	215	15.17	207	31.05	20.25
1890	240	16.94	187	28.05	20.49	216	15.25	164	24.60	18.24	249	17.58	202	30.30	21.64
1891	296	20.30	199	28.10	22.84	205	18.17	184	26.00	20.70	301	20.64	216	30.50	23.86
Total	3,352		2,847			3,047		2,613			3,381		2,759		
Mean	197.2	17.65	167.5	31.00	22.00	179.2	16.18	153.7	28.17	20.12	198.8	17.82	156.4	29.70	21.70

## 784 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XXII.—Deaths of children under 1 year of age, by months, sex, and color, during seventeen years from July 1, 1875, to June 30, 1892.

Year.	July.					August.					September.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
1876 .....	58	57	50	55	220	37	43	32	37	149	25	17	34	36	112
1877 .....	35	47	48	51	181	27	39	30	28	124	15	16	16	10	57
1878 .....	21	27	29	31	108	37	28	43	41	149	14	13	26	27	80
1879 .....	34	31	44	57	166	23	31	46	42	142	14	23	22	19	78
1880 .....	57	54	66	43	220	27	27	48	27	129	22	14	26	24	86
1881 .....	38	36	36	47	157	22	16	27	36	101	12	15	38	29	94
1882 .....	47	46	65	62	220	38	30	35	45	148	32	28	29	31	120
1883 .....	63	31	59	49	202	21	13	24	26	84	16	13	29	19	77
1884 .....	46	68	56	46	216	28	22	42	38	130	14	27	24	25	90
1885 .....	32	30	40	38	146	38	47	44	43	172	35	34	39	27	135
1886 .....	49	57	59	56	221	24	25	36	35	120	26	16	21	28	91
1887 .....	35	36	50	49	170	41	24	44	39	148	23	27	45	18	113
1888 .....	63	54	44	58	219	35	27	31	40	133	27	27	29	36	119
1889 .....	52	56	65	54	227	54	29	59	68	210	39	23	35	33	130
1890 .....	43	44	47	47	181	41	42	45	45	173	23	21	28	28	100
1891 .....	55	43	51	44	193	31	31	42	34	138	36	31	42	32	141
1892 .....	54	47	57	58	216	37	30	41	36	144	28	27	34	32	121
Total .....	782	764	872	845	3,263	561	504	600	600	2,394	401	372	517	454	1,744
Total by color ..	1,546		1,717		.....	1,065		1,329		.....	773		971		.....
Total males .....	1,654				.....	1,230				.....	618				.....
Total females ..	1,609				.....	1,164				.....	826				.....

Year.	October.					November.					December.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
1876 .....	5	5	14	13	39	4	7	7	14	32	8	3	20	10	41
1877 .....	14	9	30	25	78	12	6	16	19	53	11	10	24	27	72
1878 .....	14	15	22	17	68	15	10	18	22	65	9	6	25	24	64
1879 .....	11	14	25	18	68	13	5	32	18	68	19	10	24	16	69
1880 .....	12	4	25	22	63	16	9	10	21	65	14	11	27	21	73
1881 .....	20	8	28	24	80	15	5	19	23	62	16	9	20	27	72
1882 .....	22	17	32	14	85	17	16	30	20	83	13	13	20	20	66
1883 .....	24	23	24	26	97	11	12	25	19	67	9	14	23	17	63
1884 .....	16	18	19	12	58	13	14	20	19	66	20	9	24	33	86
1885 .....	15	20	30	21	86	19	14	21	19	73	22	11	25	21	79
1886 .....	13	8	19	21	61	14	15	23	20	72	13	10	20	16	59
1887 .....	27	23	35	26	111	13	11	25	22	71	23	7	21	14	65
1888 .....	25	8	28	24	85	11	11	17	21	60	24	13	21	22	80
1889 .....	17	26	27	30	100	23	15	13	23	74	12	22	32	27	93
1890 .....	21	17	22	17	77	20	15	22	11	68	13	11	24	27	75
1891 .....	23	16	21	26	86	18	18	19	23	78	27	15	22	28	92
1892 .....	26	28	33	28	115	17	12	31	12	72	33	18	30	30	111
Total .....	307	252	434	364	1,357	251	195	357	326	1,129	286	192	402	380	1,260
Total by color ..	559		798		.....	446		683		.....	478		782		.....
Total males .....	741				.....	608				.....	688				.....
Total females ..	616				.....	521				.....	572				.....

TABLE XXII.—Deaths of children under 1 year of age, by months, sex, and color, during seventeen years, from July 1, 1875, to June 30, 1892—Continued.

Year.	January.					February.					March.				
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
1876	6	8	15	13	42	12	6	17	10	55	11	10	25	12	58
1877	20	18	24	18	80	19	18	28	32	97	25	17	34	19	95
1878	13	12	30	24	79	18	7	20	12	57	23	16	22	15	76
1879	22	10	29	24	85	13	12	23	28	76	27	15	33	23	98
1880	16	19	16	20	71	21	22	26	22	91	13	13	35	26	87
1881	11	18	15	20	64	20	12	19	34	85	14	15	25	26	80
1882	7	11	25	21	64	11	7	23	32	73	16	14	36	24	90
1883	22	7	23	29	81	15	3	26	23	67	9	19	26	21	75
1884	18	16	31	29	94	19	9	18	25	71	17	11	24	25	77
1885	19	10	27	18	74	21	11	30	31	93	25	15	30	20	90
1886	24	17	16	29	86	25	15	29	17	86	13	19	25	21	78
1887	16	15	24	20	75	9	4	21	14	48	24	15	26	24	89
1888	17	12	33	28	90	18	11	29	24	82	20	29	42	25	116
1889	27	12	34	29	102	13	15	29	22	79	36	20	32	21	99
1890	23	16	33	34	106	15	13	24	24	76	25	13	30	19	87
1891	13	12	24	24	73	23	17	25	20	85	18	18	39	29	104
1892	45	25	54	39	163	24	19	35	31	109	25	20	23	24	92
Total	319	238	453	419	1,429	296	201	422	411	1,330	331	279	507	374	1,491
Total by color	557		872		.....	497		833		.....	610		881		.....
Total males	772		.....		.....	718		.....		.....	838		.....		.....
Total females	657		.....		.....	612		.....		.....	653		.....		.....

Year.	April					May					June					Grand totals by years.
	White.		Colored.		Total.	White.		Colored.		Total.	White.		Colored.		Total.	
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		
1876	7	5	21	10	43	12	10	12	17	51	58	44	52	45	199	1,041
1877	9	18	25	15	67	11	13	24	20	68	42	32	46	41	161	1,133
1878	10	13	32	26	81	38	30	45	42	155	49	28	65	41	183	1,165
1879	24	15	20	20	79	15	15	21	16	67	52	55	55	48	210	1,206
1880	13	15	33	23	84	29	22	32	31	114	47	48	60	67	222	1,305
1881	14	14	26	21	75	14	6	24	12	56	39	18	32	26	115	1,041
1882	8	14	17	18	57	14	6	33	15	68	39	32	38	54	163	1,237
1883	11	14	18	20	73	18	16	20	12	66	30	24	39	34	127	1,079
1884	15	10	21	18	64	17	7	24	17	65	45	50	50	43	188	1,295
1885	18	15	40	17	90	9	13	23	23	68	45	38	63	49	195	1,301
1886	18	15	39	19	91	14	6	25	25	70	35	25	32	33	125	1,160
1887	14	13	26	22	75	14	13	25	24	76	64	50	57	68	239	1,280
1888	22	15	23	27	87	18	13	29	22	82	40	60	48	54	202	1,355
1889	19	13	28	24	84	12	11	17	26	66	60	38	54	52	204	1,468
1890	18	14	32	14	78	35	22	49	45	151	62	57	70	68	257	1,429
1891	31	15	40	37	123	23	16	25	35	99	71	44	59	47	221	1,433
1892	17	18	35	23	93	25	20	28	13	86	71	56	66	56	249	1,571
Total	268	236	486	354	1,344	318	239	456	395	1,408	849	699	886	826	3,260	21,409
Total by color	504		840		.....	557		851		.....	1,548		1,712		.....	{ 9,140 W. 12,269 C.
Total males	754				.....	774				.....	1,735				.....	11,430 M.
Total females	590				.....	634				.....	1,525				.....	9,979 F.



## 786 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XXIII.—Deaths of children under 5 years of age in the District of Columbia during thirteen calendar years.

Year.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1880.....																		
1881.....	47	59	106	49	87	136	51	98	149	50	87	137	45	52	97	71	77	148
1882.....	54	77	131	62	96	158	73	84	157	48	51	99	65	68	133	102	110	212
1883.....	52	75	127	39	74	113	82	89	171	48	84	132	58	55	113	80	89	169
1884.....	74	106	180	68	97	165	59	81	140	62	65	127	46	69	115	123	123	246
1885.....	56	80	136	58	104	162	69	88	157	49	104	153	42	83	125	112	144	256
1886.....	61	70	131	57	75	132	46	85	131	37	89	126	30	66	96	80	88	168
1887.....	46	62	108	23	61	84	58	79	137	52	72	124	38	68	106	135	153	288
1888.....	49	96	145	67	88	155	95	105	209	61	77	138	54	74	128	129	117	246
1889.....	66	103	169	38	81	119	66	90	156	53	77	130	37	58	95	125	123	248
1890.....	62	123	185	39	77	116	54	83	137	45	74	119	75	125	200	154	175	329
1891.....	49	80	129	65	82	147	62	128	190	66	118	184	60	99	159	133	131	264
1892.....	93	117	210	63	98	161	67	75	142	56	76	132	58	63	121	149	150	299
Total ..	709	1,048	1,757	628	1,020	1,648	782	1,085	1,867	627	974	1,601	608	880	1,488	1,393	1,480	2,875
Mean ..	59.1	87.3	146.4	52.3	85.0	137.3	65.1	90.4	155.6	52.3	81.1	133.4	50.7	73.3	124.0	116.1	123.3	239.4

Year.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1880.....	86	120	206	69	95	164	56	95	151	67	79	146	52	65	117	53	68	121
1881.....	114	145	259	95	125	220	86	101	187	71	86	157	56	89	145	40	67	107
1882.....	108	133	241	50	91	141	40	85	125	71	68	139	45	72	117	49	57	106
1883.....	149	140	289	75	117	192	70	88	158	39	71	110	46	85	131	79	118	197
1884.....	72	113	185	114	118	232	94	103	197	52	71	123	50	58	108	53	73	126
1885.....	131	158	289	66	100	166	67	72	139	35	66	201	39	76	115	41	61	102
1886.....	85	113	198	83	118	201	77	98	175	65	96	161	41	71	112	42	56	98
1887.....	137	118	255	83	92	175	79	86	165	51	61	112	37	56	93	57	70	127
1888.....	141	145	286	123	171	294	86	106	192	59	91	150	57	56	113	48	91	139
1889.....	105	124	229	119	113	232	71	80	151	73	60	133	50	65	115	49	73	122
1890.....	117	127	244	79	106	185	90	103	193	63	68	131	53	61	114	58	72	130
1891.....	130	141	271	93	112	205	87	105	192	81	87	168	57	60	126	72	86	158
1892.....																		
Total ..	1,375	1,577	2,952	1,049	1,358	2,407	903	1,122	2,025	727	904	1,631	583	823	1,406	641	892	1,533
Mean ..	114.6	131.1	246.0	87.4	113.2	200.6	75.2	93.5	168.7	60.6	75.3	136.0	48.6	68.6	117.2	53.4	74.3	127.7

TABLE XXIV.—Percentage of deaths of those under 1 year old to total deaths of all ages; also to total births and to total deaths of those under 5 years of age, and total deaths per 1,000 inhabitants of children under 1 year of age, for seventeen years from July 1, 1875, to June 30, 1892, inclusive.

Year.	Total deaths of those under 1 year old.	Total deaths of all ages.	Percentage of deaths of those under 1 year old to total deaths of all ages.	Total births (reported), not including stillbirths.	Percentage of deaths of those under 1 year old to total births (not including stillbirths).	Total deaths of those under 5 years old.	Percentage of deaths of those under 1 year old to total deaths of those under 5 years old.	Total deaths per 1,000 inhabitants of those under 1 year old.	Percentage of deaths of those under 5 years old to total births, excluding stillbirths.	Total deaths per 1,000 inhabitants of those under 5 years of age.
1876.....	1,041	4,160	25.00	4,289	24.27	1,563	66.60	6.60	36.58	9.91
1877.....	1,133	4,208	26.92	3,811	29.73	1,856	61.01	6.97	48.70	11.43
1878.....	1,165	4,231	27.53	3,912	29.78	1,806	64.50	6.96	46.16	10.80
1879.....	1,206	4,309	27.98	3,816	31.60	2,020	59.70	6.99	52.93	11.72
1880.....	1,305	4,207	33.39	4,095	31.86	1,958	71.75	7.35	47.81	11.02
1881.....	1,041	4,136	25.17	3,595	28.96	1,678	62.04	5.68	43.00	9.17
1882.....	1,237	4,571	27.06	3,391	36.48	1,873	66.00	6.55	55.23	9.92
1883.....	1,079	4,286	25.18	3,116	34.95	1,669	65.25	5.67	53.56	8.69
1884.....	1,205	4,814	25.03	3,224	37.38	2,034	59.24	6.03	63.09	10.17
1885.....	1,301	4,998	26.03	3,334	39.05	1,957	66.48	6.55	58.69	9.78
1886.....	1,160	4,674	25.24	3,516	33.56	1,703	69.29	5.66	48.43	8.30
1887.....	1,280	4,665	27.43	3,728	34.33	1,791	71.47	6.09	48.04	8.53
1888.....	1,355	5,040	26.80	3,670	36.91	1,935	70.00	6.00	52.72	8.60
1889.....	1,468	5,152	28.49	4,001	36.69	2,089	70.27	5.87	52.21	8.35
1890.....	1,427	5,564	25.64	4,070	35.06	2,067	69.03	5.70	50.78	8.26
1891.....	1,433	5,720	25.00	4,344	32.97	2,070	69.22	5.73	47.44	8.28
1892.....	1,571	6,098	25.76	4,614	34.04	2,183	71.96	6.04	47.31	8.40
Total ..	21,407	80,923	.....	64,526	.....	32,252	.....	.....	.....	.....
Mean ..	.....	.....	26.45	.....	33.17	.....	66.37	6.26	50.20	9.49

## 788 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XXV.—Deaths of persons over 60 years of age, less those by violence.

Years.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1880.....																		
1881.....	54	24	78	37	20	57	47	21	68	49	25	74	38	22	60	30	17	47
1882.....	56	21	77	37	36	73	53	17	70	43	32	75	38	25	63	30	24	54
1883.....	45	23	68	42	21	63	56	30	86	57	17	74	51	17	68	36	20	56
1884.....	50	24	74	53	22	75	64	25	89	53	30	83	32	20	52	34	17	51
1885.....	51	26	77	68	31	99	72	36	108	48	31	79	34	32	66	53	28	81
1886.....	50	17	67	51	43	94	68	30	98	56	26	82	42	28	70	39	21	60
1887.....	57	21	78	43	26	69	54	17	71	47	31	78	33	25	58	40	22	62
1888.....	68	30	98	66	22	88	72	29	101	52	19	71	56	22	78	39	27	66
1889.....	57	30	87	51	21	72	69	26	95	68	34	102	45	26	71	47	27	67
1890.....	77	33	110	64	20	84	67	35	102	53	27	80	53	26	79	52	25	77
1891.....	61	28	89	52	17	69	86	37	123	149	51	200	59	26	85	56	20	76
1892.....	120	54	174	75	33	108	86	28	114	76	25	101	65	25	90	62	15	77
Total.....	746	331	1,077	639	312	951	794	331	1,125	751	348	1,099	546	294	840	518	256	774
Mean.....	62.2	27.6	89.7	53.2	26.0	79.2	66.2	27.6	93.8	62.6	29.0	91.6	45.5	24.5	70.0	43.1	21.3	61.5

Years.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1880.....	29	18	47	20	18	38	39	21	60	44	18	62	27	16	43	45	21	66
1881.....	43	20	63	38	26	64	26	18	44	52	21	73	44	21	65	49	22	71
1882.....	34	21	55	31	22	53	26	25	51	31	29	60	29	17	46	37	21	58
1883.....	51	19	70	38	28	66	33	16	49	32	16	48	49	17	66	64	24	88
1884.....	41	31	72	29	25	54	32	16	48	46	17	63	46	26	72	39	31	70
1885.....	61	31	92	48	23	71	38	28	66	38	17	55	35	26	61	38	21	59
1886.....	49	31	80	42	27	69	64	25	89	44	17	61	47	26	73	47	25	72
1887.....	59	30	89	40	26	66	48	32	80	58	18	76	45	30	75	49	22	71
1888.....	52	24	76	43	22	65	33	16	49	39	21	60	37	22	59	59	22	81
1889.....	52	29	81	40	23	63	39	23	62	60	28	88	47	27	74	44	22	66
1890.....	41	26	67	36	19	55	49	17	66	52	29	81	65	19	84	76	36	111
1891.....	50	28	78	61	24	85	46	25	71	58	14	72	56	20	76	88	34	121
1892.....																		
Total.....	562	308	870	466	283	749	473	262	735	554	245	799	527	267	794	635	390	935
Mean.....	46.8	25.7	72.5	38.8	23.6	62.4	39.4	21.8	61.2	46.1	20.4	66.6	43.9	22.2	66.2	52.9	25.0	77.9

TABLE XXVI.—Deaths from diarrheal diseases during fifteen years, from January 1, 1878, to January 1, 1892, inclusive.

Months.	1877.			1878.			1879.			1880.			1881.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
January.....	2	3	5	6	.....	6	6	1	7	3	2	5	3	2	5
February.....	1	2	3	1	1	2	4	2	6	3	4	7	4	3	7
March.....	6	3	9	6	2	8	.....	2	2	4	.....	4	3	.....	7
April.....	.....	.....	.....	3	3	6	3	2	5	4	2	6	5	.....	10
May.....	3	1	4	32	19	51	7	2	9	15	18	33	39	28	67
June.....	46	32	78	46	47	93	78	51	129	54	57	111	72	70	142
July.....	59	83	142	33	76	109	72	73	145	33	42	75	51	63	114
August.....	39	53	92	30	52	82	31	35	66	11	26	37	40	32	72
September.....	16	16	32	7	15	22	17	30	47	11	17	28	17	20	37
October.....	9	11	20	12	8	20	7	16	23	7	5	16	12	10	22
November.....	4	5	9	3	1	4	2	6	8	4	4	8	1	2	3
December.....	3	3	6	3	2	5	2	2	4	3	2	5	.....	.....	.....
Total.....	188	212	400	182	226	408	229	222	451	152	183	335	252	237	489
Mean.....	12.5	14.1	26.6	12.1	15.1	27.2	15.2	14.8	30.0	10.1	12.2	22.3	16.8	15.8	32.6



TABLE XXXVI.—Deaths from diarrheal diseases during fifteen years, from January 1, 1878, to January 1, 1892, inclusive—Continued.

Months.	1882.			1883.			1884.			1885.			1886.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
January.....	2	4	6	.....	1	1	1	.....	1	3	2	5	2	.....	2
February.....	4	2	6	2	.....	2	1	2	3	1	2	3	3	1	4
March.....	6	1	7	1	3	4	3	5	8	2	4	6	3		3
April.....	4	4	8	2	3	5	3	1	4	.....	4	4	.....	2	2
May.....	5	3	8	5	3	8	1	7	8	3	2	5	3	1	4
June.....	46	43	89	34	25	59	49	50	99	57	43	100	31	20	51
July.....	64	80	144	69	61	130	40	46	86	71	71	142	46	46	92
August.....	29	40	69	39	40	79	48	37	85	27	31	58	35	43	78
September.....	5	26	31	9	23	32	35	31	66	19	14	33	19	15	34
October.....	7	9	16	4	5	9	8	12	20	12	6	18	6	10	16
November.....	6	7	13	5	6	11	5	7	12	2	4	6	11	4	15
December.....	2	3	5	3	1	4	4	3	7	.....	2	2	2	3	5
Total.....	180	222	402	173	171	344	198	201	399	197	185	382	161	135	306
Mean.....	12.0	14.8	26.8	11.5	11.4	22.9	13.2	13.4	26.6	13.1	12.4	25.5	10.8	9.0	19.8

Months.	1887.			1888.			1889.			1890.			1891.			Total in 15 years.
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	
January.....	2	.....	2	4	.....	4	2	.....	2	2	2	4	4	2	6	61
February.....	2	3	5	3	2	5	3	3	6	2	4	6	4	.....	4	69
March.....	3	.....	3	3	2	5	4	1	5	2	2	4	.....	.....	.....	71
April.....	2	5	7	5	2	7	2	1	3	3	3	6	2	.....	2	72
May.....	.....	9	9	1	4	5	2	3	5	16	22	38	4	4	8	205
June.....	68	69	137	41	49	90	58	41	99	66	76	142	64	56	120	1,464
July.....	68	63	131	76	65	141	65	57	122	41	46	87	65	67	132	1,820
August.....	28	35	63	56	71	127	52	43	95	27	38	65	47	36	83	1,193
September.....	18	15	33	25	32	57	11	24	35	22	26	48	21	31	52	622
October.....	9	9	18	8	12	20	13	7	20	14	7	21	16	15	31	305
November.....	.....	1	1	8	1	9	2	4	6	4	3	7	5	2	7	138
December.....	7	2	9	2	2	4	2	1	3	1	2	3	6	5	11	76
Total.....	207	211	418	232	242	474	216	185	401	200	231	431	238	218	456	6,096
Mean.....	13.8	14.0	27.8	15.4	16.1	31.6	14.4	12.4	26.8	13.3	15.4	28.7	15.8	14.6	30.4	.....

TABLE XXVII.—Showing deaths from consumption, by sex, color, and months, for sixteen calendar years ending December 31, 1891.

Year.	January.				February.				March.				April.				May.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1876.....	28	13	6	11	18	14	19	18	17	14	6	12	17	9	16	18	8	14	0	13
1877.....	13	10	6	15	15	19	5	18	12	14	13	10	13	15	12	12	24	10	10	10
1878.....	14	33	20	24	13	19	13	13	18	18	19	15	14	18	20	16	7	14	10	17
1879.....	26	12	6	17	15	14	13	16	15	17	21	16	12	18	17	16	9	10	20	13
1880.....	18	11	18	21	22	18	16	28	14	15	30	19	16	18	14	19	11	22	15	25
1881.....	21	22	14	12	14	15	16	25	17	16	18	26	17	11	22	35	22	13	18	17
1882.....	15	11	14	26	20	11	20	16	24	25	15	20	15	18	13	23	15	17	18	17
1883.....	19	17	13	23	10	15	16	24	28	23	17	26	13	17	15	20	16	12	14	20
1884.....	22	28	12	30	16	14	27	23	16	16	16	16	14	24	8	27	24	8	23	23
1885.....	14	13	24	18	23	20	12	23	16	16	24	14	18	24	21	21	20	12	14	35
1886.....	19	14	13	23	13	15	13	21	17	21	21	20	14	12	22	20	16	12	14	24
1887.....	16	18	15	18	23	10	13	18	21	19	12	24	13	16	17	21	5	10	9	18
1888.....	13	18	8	13	20	18	14	17	21	19	5	30	14	13	13	33	9	11	9	21
1889.....	17	7	15	21	14	14	19	14	11	18	22	21	18	16	16	13	14	13	16	21
1890.....	16	20	21	20	14	16	19	14	22	15	18	20	17	13	19	17	23	5	14	11
1891.....	8	8	24	15	16	14	11	12	16	17	25	24	27	15	20	27	15	15	16	17
Total.....	279	255	229	307	266	247	245	300	285	283	282	313	252	257	265	338	238	198	228	302

TABLE XXVII.—*Showing deaths from consumption, by sex, color, and months, for sixteen calendar years ending December 31, 1891—Continued.*

Year.	June.				July.				August.				September.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1876.....	19	9	12	11	10	15	15	14	5	7	7	19	11	11	10	9
1877.....	11	8	15	20	7	12	10	20	10	10	9	17	16	9	7	12
1878.....	11	10	11	21	9	14	9	25	16	18	16	18	13	13	10	23
1879.....	15	13	15	26	11	13	13	20	11	10	10	19	14	9	12	19
1880.....	10	10	14	23	10	12	7	14	15	16	8	17	12	12	13	16
1881.....	14	11	16	14	6	14	17	28	15	9	13	19	13	9	15	29
1882.....	14	10	12	24	9	11	9	18	9	11	12	9	11	13	15	18
1883.....	10	9	13	16	14	18	13	13	9	14	11	23	18	12	16	19
1884.....	13	16	16	22	19	20	14	16	17	16	14	9	14	13	10	18
1885.....	9	11	10	24	14	20	18	22	11	15	11	23	16	15	14	20
1886.....	14	11	26	25	13	14	13	18	12	12	15	14	19	12	14	13
1887.....	9	12	16	13	9	13	12	21	8	14	7	14	14	20	12	22
1888.....	5	15	13	11	10	9	17	6	5	10	23	14	14	7	15	25
1889.....	9	11	17	15	12	8	20	23	14	13	19	22	9	8	16	17
1890.....	12	14	14	19	3	12	12	14	13	12	9	17	13	22	12	11
1891.....	14	8	19	15	16	7	13	13	13	12	17	17	13	15	14	10
Total .....	189	178	239	299	172	212	214	285	193	194	188	280	220	200	205	281

Year.	October.				November.				December.				Total.			
	White.		Colored.		White.		Colored.		White.		Colored.		White.		Colored.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1876.....	14	14	12	13	17	13	9	21	14	13	7	13	178	146	128	172
1877.....	14	17	8	24	12	13	13	9	18	17	13	14	165	154	121	181
1878.....	9	18	7	10	14	23	8	10	18	13	15	15	156	201	158	207
1879.....	9	13	4	13	14	9	16	16	16	20	11	17	167	158	158	208
1880.....	18	14	14	21	17	11	9	18	17	20	8	14	180	179	166	235
1881.....	17	18	15	17	22	18	13	14	17	20	15	18	195	176	192	254
1882.....	14	14	15	13	12	16	15	16	9	11	21	23	167	168	179	223
1883.....	14	7	18	9	14	19	14	25	21	12	10	23	186	176	169	241
1884.....	13	10	15	14	18	14	16	8	14	13	18	19	200	192	188	225
1885.....	14	15	12	19	12	7	17	14	20	17	10	20	187	185	187	253
1886.....	20	11	15	19	16	17	18	20	22	18	10	15	195	169	194	232
1887.....	18	14	15	9	13	19	16	16	20	12	5	16	169	177	149	210
1888.....	15	21	17	7	11	12	10	15	9	15	14	23	156	163	145	224
1889.....	13	13	11	14	7	17	12	14	24	12	26	19	162	150	209	214
1890.....	23	15	18	21	15	15	15	15	19	15	21	9	190	174	192	188
1891.....	17	15	11	18	23	15	15	14	12	16	13	12	190	157	209	194
Total .....	242	229	207	241	237	238	216	245	270	244	197	270	2,843	2,725	2,735	3,461

TABLE XXVIII.—Deaths from consumption, by ages, during the thirteen years ended June 30, 1892.

Ages.	White.		Colored.		Total.
	Male.	Female.	Male.	Female.	
Under 1 year .....	25	31	86	83	225
1 to 2 years .....	17	21	81	104	223
2 to 3 years .....	9	7	66	80	162
3 to 4 years .....	4	6	37	44	91
4 to 5 years .....	2	.....	31	31	64
Total deaths under 5 years .....	57	65	301	342	765
5 to 10 years .....	9	10	72	123	214
10 to 20 years .....	109	224	256	484	1,073
20 to 30 years .....	548	588	521	766	2,423
30 to 40 years .....	491	463	373	426	1,753
40 to 50 years .....	430	304	270	267	1,271
50 to 60 years .....	288	181	193	128	790
60 to 70 years .....	167	133	96	79	475
70 to 80 years .....	54	68	47	54	223
80 to 90 years .....	6	14	13	19	52
90 to 100 years and over .....	1	.....	1	6	8
Total .....	2,160	2,050	2,143	2,694	9,047
Total by color .....	4,210		4,837		.....
Grand total .....	9,047				



## 792 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XXIX.—Total deaths from eighteen different diseases and suicides during seventeen years, from July 1, 1875, to June 30, 1892, inclusive.

Diseases.	1876.					1877.					1878.				
	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption .....	171	135	108	165	579	159	149	121	174	603	154	180	153	202	689
Typhoid fever .....	29	33	22	14	98	24	30	11	17	82	38	29	20	14	101
Apoplexy .....	30	32	22	20	104	40	34	12	24	110	33	24	10	22	89
Insanity .....	3	2	3	...	8	10	5	5	3	23	4	...	1	1	6
Softening of the brain .....	10	2	4	1	17	15	4	2	1	22	9	11	1	...	21
Paralysis, hemiplegia, paraplegia .....	5	6	4	5	20	9	5	6	7	27	17	19	10	7	53
Cancers .....	8	30	4	13	55	12	38	3	14	67	19	32	4	12	67
Epilepsy .....	8	4	5	4	21	7	5	1	3	16	2	3	...	2	7
Diseases of the heart .....	49	36	27	40	152	48	43	33	19	143	38	45	23	31	137
Bright's disease .....	14	7	7	5	33	17	5	2	1	25	18	5	6	7	36
Rheumatism .....	5	2	1	2	10	2	6	4	3	15	3	...	2	...	5
Aneurisms .....	3	1	4	1	9	...	...	2	...	2	5	...	1	...	7
Angina pectoris .....	1	2	1	...	4	6	1	...	2	9	7	2	...	2	11
Gastritis .....	12	16	7	3	38	10	4	3	3	20	6	8	5	2	21
Cirrhosis of liver .....	8	2	1	...	11	8	2	...	2	12	1	2	1	...	4
Dropsies, including hydrocephalus .....	13	12	22	13	60	10	17	10	8	45	18	19	29	27	93
Diabetes .....	...	...	...	1	1	1	1	1	1	4	4	...	...	...	4
Hernia .....	4	1	3	1	9	1	1	2	...	4	2	1	1	...	4
Suicides .....	3	2	...	...	5	3	2	...	...	5	6	...	...	...	6

Diseases.	1879.					1880.					1881.				
	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption .....	171	183	157	205	716	166	168	173	239	746	194	173	163	229	759
Typhoid fever .....	27	18	19	10	74	20	23	19	22	84	24	20	13	10	67
Apoplexy .....	24	21	15	16	76	30	15	10	16	71	40	23	19	17	99
Insanity .....	7	2	3	...	12	9	5	1	2	17	26	7	3	2	38
Softening of the brain .....	8	7	1	5	21	4	1	3	3	11	8	1	3	3	15
Paralysis, hemiplegia, paraplegia .....	22	12	7	9	50	28	23	10	21	82	28	17	9	14	68
Cancers .....	12	48	3	23	86	21	29	5	16	71	17	47	1	22	87
Epilepsy .....	4	2	1	1	8	3	...	2	4	9	5	2	4	1	12
Diseases of the heart .....	49	30	21	25	125	43	33	23	28	127	43	38	36	33	150
Bright's disease .....	5	4	7	5	21	17	9	4	5	35	12	10	9	6	37
Rheumatism .....	...	4	3	4	11	5	2	4	2	13	10	7	3	4	24
Aneurisms .....	6	...	2	...	8	5	...	5	3	13	5	1	5	...	11
Angina pectoris .....	4	...	2	...	6	2	3	2	3	10	5	3	...	...	8
Gastritis .....	8	4	3	5	20	9	6	3	7	25	12	11	2	2	27
Cirrhosis of liver .....	2	2	1	...	5	8	2	...	2	12	11	1	2	...	14
Dropsies, including hydrocephalus .....	23	24	31	27	105	11	17	22	10	60	7	12	11	12	42
Diabetes .....	5	1	1	1	8	3	1	...	...	4	3	1	...	...	4
Hernia .....	...	5	2	...	7	3	4	...	...	7	3	3	1	...	7
Suicides .....	4	3	...	...	7	16	3	2	...	21	7	4	...	...	11

# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 793

TABLE XXIX.—Total deaths from eighteen different diseases and suicides during seven-  
teen years, etc.—Continued.

Diseases.	1882.					1883.					1884.				
	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption.....	193	180	180	251	804	160	170	174	226	730	195	188	183	253	819
Typhoid fever.....	37	37	23	23	120	18	31	26	17	92	32	21	13	10	76
Apoplexy.....	31	23	10	19	83	26	31	11	16	84	44	36	16	18	114
Insanity.....	28	4	4	7	43	31	8	6	6	51	32	6	12	6	56
Softening of the brain.....	6	5	4	2	17	6	3	.....	3	12	8	.....	.....	2	15
Paralysis, hemiplegia, paraple- gia.....	18	6	12	19	65	16	18	5	6	45	21	23	3	11	58
Cancers.....	21	34	8	17	80	17	36	7	19	79	22	44	4	20	90
Epilepsy.....	6	3	7	5	21	7	1	4	1	13	2	.....	3	.....	5
Diseases of the heart.....	74	44	28	39	185	78	58	33	36	205	78	51	33	60	222
Bright's disease.....	21	15	10	11	57	12	9	7	5	33	22	11	10	6	49
Rheumatism.....	4	9	.....	6	19	9	15	7	7	38	15	9	6	6	36
Aneurisms.....	3	2	2	.....	7	6	.....	2	2	10	5	4	2	2	13
Angina pectoris.....	5	2	1	1	9	5	4	.....	.....	11	3	5	1	.....	9
Gastritis.....	7	6	2	7	22	16	6	.....	7	29	11	8	8	3	30
Cirrhosis of liver.....	4	4	1	.....	9	6	3	1	.....	10	2	2	.....	2	6
Dropsies, including hydrocephalus.....	5	2	13	17	37	10	7	14	11	42	4	12	12	11	39
Diabetes.....	.....	1	.....	.....	1	5	.....	.....	1	6	3	1	.....	.....	4
Hernia.....	.....	2	3	.....	5	3	2	.....	1	6	3	3	2	.....	8
Suicides.....	10	3	1	1	15	16	3	1	1	21	10	1	1	.....	12

Diseases.	1885.					1886.					1887.					1888.				
	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption.....	195	182	192	219	788	180	174	191	251	796	189	169	167	211	736	164	186	129	223	702
Typhoid fever.....	48	35	14	27	124	46	35	24	23	128	32	40	24	20	116	47	48	37	36	168
Apoplexy.....	43	24	24	10	101	40	34	22	29	125	46	32	17	20	115	66	30	19	23	138
Insanity.....	56	13	17	7	93	68	16	11	6	101	52	13	18	9	92	77	16	13	11	117
Softening of the brain.....	7	5	2	1	15	9	5	1	2	17	8	5	2	1	16	4	5	1	.....	10
Paralysis, hemiplegia, paraple- gia.....	20	27	9	17	73	19	17	13	15	64	12	10	14	10	46	16	18	17	12	63
Cancers.....	25	61	10	23	119	27	53	4	19	103	25	55	8	26	114	27	47	4	22	100
Epilepsy.....	3	1	1	3	8	4	2	1	2	9	2	2	2	2	8	6	6	4	2	18
Diseases of the heart.....	65	78	40	52	235	72	48	41	74	235	66	77	45	53	241	81	68	58	66	273
Bright's disease.....	25	9	10	9	53	19	13	13	8	53	19	14	7	9	49	18	17	10	15	60
Rheumatism.....	11	10	7	6	34	21	6	4	3	34	13	13	3	7	36	17	18	5	13	53
Aneurisms.....	2	1	8	.....	11	8	.....	2	2	12	3	1	1	.....	5	5	2	4	2	13
Angina pectoris.....	4	2	1	.....	7	4	1	1	1	7	3	1	1	.....	5	1	2	.....	2	5
Gastritis.....	13	10	4	4	31	11	16	5	5	37	14	10	5	5	34	18	15	2	6	41
Cirrhosis of liver.....	9	5	1	.....	15	9	5	2	1	17	10	3	1	1	15	9	4	2	1	16
Dropsies, including hydrocephalus.....	39	10	8	8	37	9	5	11	13	38	4	8	8	10	30	8	7	6	10	31
Diabetes.....	4	6	3	1	10	5	6	1	.....	12	7	3	2	1	13	2	3	1	1	7
Hernia.....	8	1	.....	4	5	4	2	2	.....	8	2	1	2	1	6	2	1	1	.....	4
Suicides.....	11	2	.....	.....	13	13	1	2	1	17	17	4	2	1	24	13	5	.....	.....	18

TABLE XXIX.—Total deaths from eighteen different diseases and suicides during seven-teen years, etc.—Continued.

Diseases.	1889.					1890.					1891.					1892.				
	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.	W.		C.		Total.
	M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.		M.	F.	M.	F.	
Consumption .....	157	148	188	204	697	183	154	209	210	756	182	168	202	197	749	185	157	194	178	714
Typhoid fever .....	53	43	41	33	170	66	52	43	47	208	64	65	40	39	208	70	37	39	37	183
Apoplexy .....	46	22	22	26	116	48	28	14	23	113	40	32	13	25	110	66	38	19	26	149
Insanity .....	72	18	10	10	110	74	20	18	11	123	74	17	9	10	110	31	11	4	5	51
Softening of the brain .....	9	6	4	1	20	9	6	7	1	23	6	1	4	3	14	10	7	7	2	26
Paralysis, hemiplegia, paraple- gia .....	20	22	14	20	76	18	24	10	17	69	22	23	11	28	84	35	40	22	24	121
Cancers .....	26	73	2	18	119	26	66	6	23	121	31	59	10	31	131	35	52	6	18	111
Epilepsy .....		3	4	1	8	4	5	5	1	15	12	3	4	7	26	13	2	5	2	22
Diseases of the heart .....	93	61	49	64	270	94	66	51	62	273	101	81	69	73	324	102	95	65	65	327
Bright's disease .....	20	6	8	5	39	23	12	16	7	58	29	20	9	5	63	23	20	14	12	69
Rheumatism .....	14	11	6	3	34	10	11		6	35	18	11	8	12	49	11	13	10	17	51
Aneurisms .....	3	2	3	2	10	6	1	3	2	12	7	1	1	1	10	9	2	5		16
Angina pectoris .....	2	1	1	2	6	5	1		1	7	11	2		1	14	10	3	1	2	16
Gastritis .....	14	16	4	9	43	13	17	6	7	43	13	11	6	9	39	18	23	4	8	53
Cirrhosis of liver .....	9		2	1	12	13	3	1		17	5	1	1		7	18	3	1	1	23
Dropsies, including hydrocephalus .....	4	7	6	8	25	7	8	11	5	31	9	10	8	15	42	4	10	12	6	32
Diabetes .....	5	5	1	1	12	5	3		1	9	7	5	1	1	14	1	7		2	10
Hernia .....	3		6		9	5	6	1	1	13	1	4		1	6	4		5		9
Suicides .....	14		1		15	20	1	1		22	27	6	1	2	36	17	6	1	1	25



TABLE XXX.—Deaths from cancers, by color, sex, and nativity, from September 1, 1874, to June 30, 1892.

Cancers of—	Color.	Sex.	Nativity.									Total.
			District of Columbia.	Other parts of the United States.	Ireland.	England.	Scotland.	Germany.	France.	Italy.	Other countries.	
Breast	White	Female	29	98	27	4	1	5			3	167
	Colored	Male	1	2								3
Uterus	White	Female	12	63								75
	Colored	Female	52	178	31	12	1	18	2	1	7	302
Ovary	White	Female	27	119								146
	Colored	Female	5	9	2				2			18
Stomach	White	Female	1	4								5
	Colored	Female	12	44	19	4	1	27	1	1	4	113
Liver	White	Female	17	42	16	5		11	1		2	94
	Colored	Male	4	32								36
Face, head, neck, mouth, and throat	White	Female	9	43								52
	Colored	Male	6	17	4			12			3	42
All others	White	Female	12	23	3	4		6			2	50
	Colored	Male		9								9
Total	White	Female		7								7
	Colored	Female	19	55	18	4		5	2		2	105
Total by sex	White	Male	12	19	9			3			2	45
	Colored	Male	1	13								14
Total by color	White	Female	1	8							1	10
	Colored	Female	15	68	10	5	1	20	1		2	122
Grand total	White	Male	33	86	11	3	1	13	1	1	2	151
	Colored	Male	4	25								29
Total	White	Female	5	48								53
	Colored	Female	52	184	51	13	2	64	4	1	11	382
Total by sex	White	Female	160	455	99	28	3	56	6	2	18	827
	Colored	Male	10	81								91
Grand total	White	Female	55	292							1	348
	Colored	Female										
Total by sex	White	Female	277	1,012	150	41	5	120	10	3	30	1,648
	Colored	Female										
Total by color	White	Female	62	265	51	13	2	64	4	1	11	473
	Colored	Female	215	747	99	28	3	56	6	2	19	1,175
Grand total	White	Female										
	Colored	Female										
Total by color	White	Female	212	639	150	41	5	120	10	3	29	1,209
	Colored	Female	65	373							1	439

TABLE XXXI.—Deaths from cancers of white females from September 1, 1874, to June 30, 1892.

Cancer of—	Married.		Widows.		Single.		Total deaths from cancers, white females.
	Deaths from cancers.	Percentage to total deaths, married.	Deaths from cancers.	Percentage to total deaths, widows.	Deaths from cancers.	Percentage to total deaths, single.	
Breast	60	15.00	70	23.73	37	28.06	167
Uterus	188	47.00	95	32.28	20	15.15	303
Ovary	11	2.75	5	1.69	2	1.51	18
Stomach	32	8.00	45	15.24	18	12.63	95
Liver	22	5.50	18	6.10	12	9.09	52
Face, head, neck, mouth, and throat.	16	4.00	21	7.10	8	6.06	45
All others	71	17.75	41	13.86	35	26.50	147
Total	400	100.00	295	100.00	132	100.00	827

TABLE XXXII.—Deaths from cancers of colored females from September 1, 1874, to June 30, 1892.

Cancer of—	Married.		Widows.		Single.		Total deaths from cancers, colored females.
	Deaths from cancers.	Percentage to total deaths, married.	Deaths from cancers.	Percentage to total deaths, widows.	Deaths from cancers.	Percentage to total deaths, single.	
Breast .....	27	18.00	43	26.86	6	15.79	76
Uterus .....	72	40.00	62	38.75	13	34.21	147
Ovary .....	4	2.67	1	.62			5
Stomach .....	14	9.33	30	18.75	8	21.05	52
Liver .....	4	2.67	2	1.25	1	2.63	7
Face, head, neck, mouth, and throat.	4	2.67	3	1.87	3	7.90	10
All others .....	25	16.66	19	11.90	7	18.42	51
Total .....	150	100.00	160	100.00	38	100.00	348

TABLE XXXIII.—Deaths from cancers, by age, color, and sex, with percentages, from September 1, 1874, to June 30, 1892.

Age.	Color.	Sex.	Cancer of breast.	Cancer of uterus.	Cancer of ovary.	Cancer of stomach.	Cancer of liver.	Cancer of face, head, neck, mouth, and throat.	All other cancers.	Total.
Under 20 years .....	White ..	Male .....					2	2	7	11
		Female ...	1	1			1	4	8	15
	Colored ..	Male .....	1			1		1	2	5
		Female ...				2		1	2	5
20 to 30 years .....	White ..	Male .....				1		1	3	5
		Female ...		4	3	5	1	2	7	22
	Colored ..	Male .....				2	1	1	5	9
		Female ...	2	8	1	2		1	4	18
30 to 40 years .....	White ..	Male .....				3	6	3	9	21
		Female ...	8	50	2	3	4		17	84
	Colored ..	Male .....	1			4		1	1	7
		Female ...	9	35	2	3	1	1	8	59
40 to 50 years .....	White ..	Male .....				16	6	18	15	55
		Female ...	40	94	3	11	15	4	28	195
	Colored ..	Male .....				13	1	3	2	19
		Female ...	12	34		10	1	1	15	73
50 to 60 years .....	White ..	Male .....				37	17	23	26	103
		Female ...	48	72	4	25	10	6	42	207
	Colored ..	Male .....				6	3	3	9	21
		Female ...	18	38	2	9	2	2	6	77
60 to 70 years .....	White ..	Male .....				25	7	25	36	93
		Female ...	43	53	5	29	10	10	34	184
	Colored ..	Male .....				6	2	3	4	15
		Female ...	16	15		10	1	1	11	54
70 to 80 years .....	White ..	Male .....				24	3	24	21	72
		Female ...	25	22	1	20	8	8	14	98
	Colored ..	Male .....				4	2	1	3	10
		Female ...	11	13		11	1	1	5	42
80 years and over .....	White ..	Male .....				7	1	9	5	22
		Female ...	2	6		1	1	11	1	5
	Colored ..	Male .....	1					1	3	2
		Female ...	7	3		5	1	2	2	20
Total .....	White ..	Male .....				113	42	105	122	382
		Female ...	167	302	18	94	50	45	151	827
	Colored ..	Male .....	3			36	9	14	29	91
		Female ...	75	146	5	52	7	10	53	348
Grand total .....			245	448	23	295	108	174	355	1,648
Percentage to total deaths from cancer.			14.86	27.21	1.41	17.92	6.54	10.55	21.50	100.00

TABLE XXXIV.—Number of deaths from cancers, by color, sex, and age; total number of deaths from all causes, and number of deaths from all causes to one of cancer, from September 1, 1874, to June 30, 1892.

Cause of death.	White.			Colored.			Grand total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Under 20 years:							
Deaths from cancers .....	11	15	26	5	5	20	46
Deaths from all causes .....	9,575	8,908	18,483	12,060	11,877	23,937	42,420
Number of deaths from all causes to 1 from cancer ..	870	594		2,412	2,375		
20 to 30 years:							
Deaths from cancers .....	5	22	27	9	18	27	54
Deaths from all causes .....	1,838	1,984	3,822	1,530	2,033	3,563	7,385
Number of deaths from all causes to 1 from cancer ..	367	90		170	113		
30 to 40 years:							
Deaths from cancers .....	21	84	105	7	59	66	171
Deaths from all causes .....	2,106	1,946	4,052	1,299	1,570	2,869	6,921
Number of deaths from all causes to 1 from cancer ..	100	23		185	26	43	
40 to 50 years:							
Deaths from cancers .....	55	195	250	19	73	92	332
Deaths from all causes .....	2,573	1,661	4,234	1,346	1,201	2,547	6,781
Number of deaths from all causes to 1 from cancer ..	47	8		71	16		
50 to 60 years:							
Deaths from cancer .....	103	207	310	21	77	98	408
Deaths from all causes .....	2,551	1,634	4,185	1,119	927	2,046	6,231
Number of deaths from all causes to 1 from cancer ..	25	8		53	12		
60 to 70 years:							
Deaths from cancers .....	93	184	277	15	54	69	346
Deaths from all causes .....	2,376	1,828	4,204	913	915	1,828	6,032
Number of deaths from all causes to 1 from cancer ..	25	10		61	17		
70 to 80 years:							
Deaths from cancers .....	72	98	170	10	42	52	222
Deaths from all causes .....	1,937	1,773	3,710	755	871	1,626	5,336
Number of deaths from all causes to 1 from cancer ..	27	18		75	21		
80 years and over:							
Deaths from cancers .....	22	22	44	5	20	25	69
Deaths from all causes .....	707	1,060	1,767	500	943	1,443	3,210
Number of deaths from all causes to 1 from cancer ..	32	48		100	47		
Total deaths from cancers .....	382	827	1,209	91	348	439	1,648
Total deaths from all causes .....	23,663	20,794	44,457	19,522	20,337	39,859	84,316
Number of deaths from all causes to 1 from cancer ..	62	25	36.7	214	58	90	50

TABLE XXXV.—Showing the number of stillbirths, including legitimate and illegitimate, with percentages of each to stillbirths, and of illegitimates to total illegitimate stillborn, by color, for fourteen years, from 1879 to 1892, inclusive.

Year.	Number of stillborn.	Color.		Legitimate.		Illegitimate.		Percentage of legitimates to total stillbirths, by color.		Percentage of illegitimates to total stillbirths, by color.		Percentage of illegitimate stillborn to total illegitimate stillborn, by color.	
		White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
1879 .....	395	130	265	112	171	18	94	28.4	43.3	4.56	23.8	16	84
1880 .....	358	119	239	105	159	14	80	29.3	44.4	3.90	22.3	14.9	85.1
1881 .....	370	141	229	125	143	16	86	33.8	38.6	4.30	23	15.7	84.3
1882 .....	351	140	211	124	146	16	65	35.3	41.5	4.66	18.6	19.7	80.3
1883 .....	362	154	208	136	139	18	69	37.5	38.4	5.07	19	20.7	79.3
1884 .....	351	132	219	123	141	9	78	35	40.2	2.57	22.2	10.3	89.7
1885 .....	391	179	212	154	127	25	85	39.4	32.5	6.40	21.7	22.7	77.3
1886 .....	406	164	242	149	138	15	104	40.4	34.9	3.70	25.6	12.6	87.4
1887 .....	406	149	257	127	146	22	111	31.3	36	5.40	27.3	16.6	83.4
1888 .....	458	182	276	156	155	26	121	34.1	33	5.68	26.4	17.7	82.3
1889 .....	443	157	286	137	163	20	123	30.9	36.8	4.51	28	14	86
1890 .....	474	183	291	172	181	11	110	36.3	38.2	2.32	23.2	9.1	91
1891 .....	440	172	268	154	157	18	111	35	35.7	4.09	25.2	14	86
1892 .....	467	182	285	169	180	13	105	36.2	38.6	2.78	22.5	11	88.9
Total and mean ..	5,672	2,184	3,488	1,943	2,146	241	1,342	24.1	38.2	3.57	23.1	15.3	84.6



TABLE XXXVI—Showing the number of legitimate and illegitimate births, with percentages of births to deaths, of stillbirths to births, of illegitimacy to births, and of illegitimacy to total illegitimacy, by color, for fourteen years, from 1879 to 1892, inclusive.

Year.	Number of deaths.	Number of births.	Births by color.		Legitimate.		Illegitimate.		Per cent of births to deaths.	Per cent of stillbirths to births.
			White.	Col.	White.	Col.	White.	Col.		
1879.....	4,309	3,816	2,117	1,699	2,068	1,400	49	299	88.5	10.4
1880.....	4,206	4,095	2,297	1,798	2,211	1,456	56	342	97.3	8.8
1881.....	4,136	3,595	2,014	1,581	1,961	1,274	53	307	86.9	10.2
1882.....	4,571	3,391	1,800	1,591	1,747	1,277	53	314	74.2	10.4
1883.....	4,286	3,116	1,684	1,432	1,631	1,132	53	300	72.7	11.6
1884.....	4,814	3,224	1,747	1,477	1,684	1,196	63	281	66.9	10.9
1885.....	4,998	3,334	1,861	1,473	1,805	1,136	56	337	66.7	11.8
1886.....	4,674	3,516	1,981	1,535	1,916	1,184	65	351	75.2	11.5
1887.....	4,665	3,728	2,092	1,636	2,022	1,288	70	348	79.9	10.9
1888.....	5,040	3,670	2,035	1,635	1,964	1,262	71	373	72.8	12.5
1889.....	5,152	4,001	2,176	1,825	2,098	1,397	78	428	77.6	11
1890.....	5,564	4,070	2,246	1,824	2,171	1,341	75	483	73.1	11.6
1891.....	5,720	4,344	2,512	1,831	2,440	1,371	73	460	75.9	10.1
1892.....	6,098	4,614	2,648	1,966	2,581	1,447	67	519	75.6	10.1
Total and mean...	68,233	52,514	29,211	23,303	28,329	18,161	882	5,142	77.3	10.8

Year.	Per cent of illegitimacy to total births.	Per cent of legitimacy to total births, by color.		Per cent of illegitimacy to total births, by color.		Per cent of illegitimacy to total illegitimacy, by color.		Per cent of white illegitimacy to white births and colored illegitimacy to colored births.	
		White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
1879.....	12.5	54.2	36.7	1.31	7.83	14	86	2.32	17.60
1880.....	12	54.7	35.6	1.38	8.35	14	86	2.43	19.02
1881.....	12.9	54.6	35.4	1.47	8.54	14.8	85.2	2.63	19.42
1882.....	12.3	51.5	37.7	1.60	9.26	14.4	85.3	2.09	19.73
1883.....	14.1	52.4	36.3	1.74	9.63	15	85	3.14	20.95
1884.....	13.4	52.2	37.1	2.00	8.70	18.3	81.7	3.60	19.02
1885.....	15	54.1	34.7	1.68	10.18	14.3	85.2	3.00	22.88
1886.....	15.2	54.5	33.7	1.85	9.98	15.6	84.4	3.28	22.86
1887.....	14.8	54.3	34.5	1.83	9.33	16.7	83.3	3.34	21.27
1888.....	16.1	53.5	34.4	1.93	10.16	16	84	3.49	22.18
1889.....	12.7	52.4	34.9	1.93	10.70	15.4	84.6	3.59	23.45
1890.....	13.7	53.3	33	1.84	11.90	13.4	86.6	3.34	26.50
1891.....	12.3	56.1	31.5	1.68	10.70	13.7	86.3	2.90	25.12
1892.....	12.7	55.9	31.3	1.45	11.25	11.4	78.6	2.53	26.40
Total and mean...	13.5	53.8	34.9	1.70	9.75	14.7	85.1	2.98	21.80

TABLE XXXVII.—Deaths from pneumonia during seventeen years, from July 1, 1875, to June 30, 1892, inclusive, by years, months, and color.

Year.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-76	3	3	6	7	11	18	33	6	9	9	15	24	12	16	28	22	20	42
1876-77	4	3	7	5	6	11	1	11	14	8	8	16	9	13	22	15	16	31
1877-78		6	6	2	5	7	9	4	5	3	10	13	7	15	25	6	20	26
1878-79	7	13	20	7	10	17	4	10	19	6	10	16	11	20	31	12	17	29
1879-80	5	3	8	6	11	17	2	12	16	4	5	9	17	9	26	11	18	29
1880-81	5	13	18	2	9	11	2	5	7	2	10	12	10	10	20	17	19	36
1881-82	2	4	6	3	7	10	5	5	7	5	6	11	11	9	20	10	29	39
1882-83	2	7	9	2	9	11	2	4	9	4	7	11	12	16	28	18	15	33
1883-84	1	6	7	3	4	7	2	4	6	7	11	18	10	14	24	34	29	63
1884-85	3	5	8	2	3	5		4	6	3	7	10	17	12	29	10	14	24
1885-86	5	4	9	2	4	6	7	1	8	5	5	10	4	12	16	11	8	19
1886-87	3	5	8	5	7	12	4	7	11	6	5	11	9	11	20	16	20	36
1887-88	2	3	5	2	2	4	5	9	14	6	6	12	15	8	23	15	12	27
1888-89	3	2	5	2	8	10	4	6	10	10	13	23	10	10	20	23	24	47
1889-90	2	2	4	4	2	6		6	6	12	8	20	13	16	29	13	21	34
1890-91	5	4	9	6	10	16	6	9	15	8	8	16	12	14	26	26	26	52
1891-92	3	6	9	3	7	10	10	11	21	7	17	24	17	10	27	32	34	66
Total pneumonia	55	89	144	63	115	178	69	114	183	105	151	256	196	215	411	291	342	633
Total bronchitis	26	45	71	29	45	74	31	46	77	48	77	125	45	106	151	85	128	213
Total congestion of lungs	30	21	51	29	22	51	29	33	62	39	46	85	54	47	101	56	63	119
Grand total acute lung diseases	111	155	266	121	182	303	129	193	322	192	274	466	295	368	663	432	533	965

Year.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-76	15	36	51	23	29	52	40	38	78	22	44	66	15	26	41	2	6	8
1876-77	30	28	58	19	42	61	23	31	54	14	19	33	7	18	25	5	13	18
1877-78	23	26	49	16	21	37	16	34	50	17	20	37	15	36	51	9	25	34
1878-79	22	34	56	20	34	54	30	47	77	19	30	49	4	21	25	3	10	13
1879-80	18	23	41	15	22	37	31	30	61	14	25	39	6	20	26	11	8	19
1880-81	20	22	42	18	23	41	24	38	62	19	27	46	12	11	23	3	7	10
1881-82	18	19	37	22	30	52	19	36	55	20	16	36	15	16	31	8	8	16
1882-83	13	23	36	20	23	43	30	31	61	20	24	44	18	10	18	6	5	11
1883-84	19	19	38	21	17	38	24	18	42	20	22	42	11	11	22	5	5	10
1884-85	11	19	30	10	45	54	24	43	67	21	39	60	13	22	35	4	12	16
1885-86	19	17	36	16	26	42	23	29	52	22	29	51	10	13	23	7	7	14
1886-87	17	19	36	20	15	35	14	15	29	18	13	31	4	9	13	6	3	9
1887-88	28	29	57	26	22	48	29	30	59	22	20	42	16	9	25	3	4	7
1888-89	16	27	43	27	27	54	32	28	60	18	18	36	4	10	14	7	2	9
1889-90	48	71	119	25	27	52	22	27	49	20	23	43	13	19	32	9	13	22
1890-91	23	17	40	17	19	36	44	36	80	86	71	157	11	31	42	14	15	29
1891-92	75	64	139	42	45	87	30	37	67	17	21	38	14	9	23	6	10	16
Total pneumonia	415	493	908	366	467	833	455	548	1,003	389	461	850	178	291	469	108	153	261
Total bronchitis	105	167	272	107	168	275	118	166	284	98	140	258	54	90	144	33	67	100
Total congestion of lungs	113	84	197	78	69	147	85	55	140	71	70	141	38	44	82	33	30	72
Grand total acute diseases	633	744	1,377	551	704	1,255	658	769	1,427	558	671	1,229	270	425	695	174	250	433

TABLE XXXVIII.—Deaths from bronchitis during seventeen years, from July 1, 1875, to June 30, 1892, inclusive, by years, months, and color.

Year.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-'76	1	1	2	3	...	3	1	2	3	2	3	5	4	3	7	5	2	7
1876-'77	3	2	5	3	2	5	2	3	5	3	5	8	2	2	4	6	7	13
1877-'78	1	...	1	...	...	...	...	...	...	1	1	2	...	2	2	3	4	7
1878-'79	1	1	2	2	4	6	3	2	5	3	2	5	3	4	7	6	4	10
1879-'80	2	...	2	...	4	4	...	4	4	1	2	3	1	4	5	4	8	12
1880-'81	...	4	4	2	4	6	4	5	9	2	4	6	1	6	7	1	5	6
1881-'82	...	3	3	1	...	1	1	2	3	4	2	6	4	7	11	2	8	10
1882-'83	1	1	2	1	...	1	...	4	4	2	6	8	1	8	9	4	7	11
1883-'84	1	1	2	2	3	5	1	3	4	3	5	8	2	11	13	6	14	20
1884-'85	1	5	6	2	1	3	2	3	5	2	4	6	1	5	6	4	10	14
1885-'86	4	4	8	1	2	3	1	4	5	2	7	9	3	8	11	3	3	6
1886-'87	2	4	6	4	4	8	3	5	8	6	9	15	4	11	15	2	7	9
1887-'88	1	...	1	1	2	3	3	1	4	1	5	6	4	3	7	5	5	10
1888-'89	1	4	5	1	3	4	3	2	5	5	5	10	3	6	9	12	9	21
1889-'90	4	4	8	1	3	4	2	1	3	5	2	7	2	10	12	7	11	18
1890-'91	2	5	7	3	9	12	4	2	6	3	10	13	4	7	11	6	10	16
1891-'92	1	6	7	2	4	6	1	3	4	3	5	8	6	9	15	9	14	23
Total	26	45	71	29	45	74	31	46	77	48	77	125	45	106	151	85	123	213

Year.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-'76	3	6	9	5	4	9	10	5	15	6	5	11	2	...	2	1	3	4
1876-'77	5	4	9	2	10	12	2	5	7	5	1	6	1	...	1	...	3	3
1877-'78	4	5	9	3	3	6	3	2	5	3	1	4	2	4	6	2	6	8
1878-'79	6	4	10	2	5	7	6	18	24	2	12	14	...	5	5	2	4	3
1879-'80	6	6	12	7	14	21	5	14	19	3	8	11	2	5	7	...	7	7
1880-'81	4	7	11	6	8	14	4	9	13	3	11	14	2	5	7	1	...	1
1881-'82	...	8	8	3	9	12	2	5	7	6	7	13	1	4	5	3	6	9
1882-'83	4	5	9	2	9	11	5	7	12	1	5	6	2	6	8	1	5	6
1883-'84	9	13	22	9	17	26	6	11	17	4	4	8	2	3	5	...	1	1
1884-'85	3	10	13	8	4	12	5	3	8	2	13	15	2	7	9	2	2	4
1885-'86	8	8	16	4	12	16	8	13	21	6	9	15	1	4	5	2	4	6
1886-'87	2	8	10	8	7	15	7	5	12	4	8	12	5	8	13	2	3	5
1887-'88	5	14	19	8	10	18	8	15	23	2	2	4	3	1	4	2	3	5
1888-'89	7	14	21	5	14	19	11	8	16	4	11	15	1	2	3	1	2	3
1889-'90	6	25	31	6	13	19	11	16	27	9	10	19	9	12	21	2	10	12
1890-'91	8	8	16	10	9	19	10	19	29	32	22	54	12	14	26	6	7	13
1891-'92	25	22	47	19	20	39	15	11	26	6	11	17	7	10	17	6	4	10
Total	105	167	272	107	168	275	118	166	284	98	140	238	54	90	144	33	67	100



TABLE XXXIX.—Deaths from congestion of the lungs during seventeen years, from July 1, 1875, to June 30, 1892, inclusive, by months, years, and color.

Years.	July.			August.			September.			October.			November.			December.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-'76	2	1	3	2	1	3	2	4	6	....	4	4	2	5	7	1	2	3
1876-'77	1	2	3	1	....	1	1	2	3	1	....	1	1	....	1	2	....	2
1877-'78	1	....	1	3	3	6	2	1	3	....	3	3	3	1	4	....	2	2
1878-'79	3	1	4	4	1	5	2	1	3	4	3	7	3	7	10	4	4	8
1879-'80	4	1	5	1	....	1	5	1	6	1	1	2	6	4	10	....	10	10
1880-'81	1	3	4	1	2	3	2	4	6	....	3	3	5	....	5	6	6	11
1881-'82	1	....	1	1	1	2	2	1	3	3	4	7	4	4	8	4	1	5
1882-'83	2	2	4	2	3	5	2	1	3	1	3	4	1	1	2	4	7	11
1883-'84	....	....	....	....	3	3	....	3	3	2	3	5	4	1	5	1	3	4
1884-'85	3	....	3	....	2	2	....	4	4	2	3	5	2	3	5	5	0	11
1885-'86	1	1	2	3	....	3	3	....	3	1	5	6	4	2	0	2	3	5
1886-'87	1	2	3	2	2	4	....	3	3	5	1	6	3	1	4	4	0	7
1887-'88	2	1	3	....	1	1	2	6	8	1	1	2	3	4	7	4	1	5
1888-'89	....	1	1	3	2	5	1	....	1	4	8	12	3	5	8	3	3	6
1889-'90	3	2	5	2	....	2	2	1	3	8	1	9	1	2	3	4	3	7
1890-'91	2	2	4	2	1	3	2	....	2	1	....	1	2	2	1	2	6	8
1891-'92	3	2	5	2	....	2	1	1	2	5	3	8	7	5	12	10	4	14
Total	30	21	51	20	22	51	20	33	62	39	46	85	54	47	101	56	60	119

Years.	January.			February.			March.			April.			May.			June.		
	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.	W.	C.	T.
1875-'76	1	3	4	3	4	7	3	5	8	8	2	10	1	1	2	....	2	2
1876-'77	7	4	11	5	1	6	3	3	6	2	3	5	2	1	3	2	....	2
1877-'78	5	2	7	5	1	6	6	2	8	1	4	5	3	4	7	3	1	4
1878-'79	6	6	12	4	8	12	5	4	9	3	6	9	2	2	4	2	1	3
1879-'80	6	2	8	9	7	16	1	2	3	2	6	8	2	....	2	....	3	3
1880-'81	4	2	6	6	6	12	2	5	7	1	....	1	3	1	4	3	3	6
1881-'82	7	4	11	5	5	10	7	3	10	6	2	8	1	7	8	....	4	4
1882-'83	6	6	12	1	1	2	4	3	7	4	5	9	3	3	6	1	3	4
1883-'84	6	10	16	1	6	7	8	1	9	2	3	5	2	1	3	5	3	8
1884-'85	10	5	15	7	5	12	6	1	7	3	5	8	1	1	2	....	5	5
1885-'86	1	6	7	4	4	8	2	1	3	2	4	6	....	2	2	3	2	5
1886-'87	11	4	15	3	3	6	4	2	6	6	5	11	2	2	4	2	2	4
1887-'88	8	3	11	5	5	10	4	6	10	2	4	6	....	4	4	....	2	2
1888-'89	4	3	7	4	2	6	5	5	10	2	2	4	2	3	5	4	....	4
1889-'90	10	7	17	1	2	3	5	3	8	2	1	3	6	3	9	2	2	4
1890-'91	3	6	9	2	3	5	10	2	12	22	12	14	4	5	9	3	3	6
1891-'92	18	11	29	13	6	19	10	7	17	3	6	9	4	4	8	3	3	6
Total	113	84	197	78	69	147	85	55	140	71	70	141	38	44	82	33	30	72

## 802    REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

TABLE XL.—Showing the mean daily dew-point, relative humidity, and the number of deaths from acute lung diseases in each month for eleven years, from 1882 to 1892, inclusive.

Years.	July.			August.			September.			October.		
	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.
1882.....	64.6	67.8	10	64.8	70.0	13	66.9	74.3	13	53.2	73.4	24
1883.....	63.1	67.1	15	64.6	75.2	17	64.6	77.1	16	53.2	77.9	23
1884.....	64.8	68.9	9	59.6	67.9	15	55.9	74.3	13	49.0	76.9	31
1885.....	63.5	72.3	17	65.1	75.1	10	60.3	69.7	15	47.6	68.3	21
1886.....	65.6	68.8	19	63.7	73.7	12	55.3	71.2	16	47.4	78.6	23
1887.....	64.4	74.4	17	63.9	75.0	24	59.7	73.4	22	46.5	70.0	32
1888.....	69.6	71.9	9	63.0	72.7	8	55.0	72.9	26	42.5	65.9	20
1889.....	63.7	77.0	11	67.1	79.6	19	58.1	83.8	16	43.1	76.8	45
1890.....	67.5	80.4	17	63.5	79.0	12	57.9	81.3	12	45.3	76.5	35
1891.....	63.1	71.2	20	63.8	77.7	31	59.6	81.7	23	46.4	76.4	30
1892.....	62.3	96.7	21	66.2	81.7	18	62.4	82.8	27	43.3	73.5	40
Total .....	712.2	816.5	165	705.3	827.6	179	655.7	842.8	199	515.5	814.2	326
Mean .....	64.7	74.2	15.0	64.1	75.2	16.3	59.6	76.6	18.1	46.9	74.0	29.6

Years.	November.			December.			January.			February.		
	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.
1882.....	39.7	74.9	39	34.5	76.6	54	27.4	80.9	56	31.5	72.6	74
1883.....	33.6	71.6	39	25.3	67.7	55	24.3	81.6	57	29.0	73.5	56
1884.....	37.6	71.0	42	29.2	75.6	87	23.2	77.9	76	34.2	78.5	71
1885.....	34.6	70.3	40	29.7	79.3	49	24.0	71.0	58	18.6	72.3	88
1886.....	37.7	76.2	33	27.6	69.1	30	23.7	81.4	59	24.8	76.2	66
1887.....	32.9	63.3	39	22.6	73.7	52	22.6	67.9	61	28.6	70.6	56
1888.....	30.3	60.1	37	27.2	69.7	42	21.2	73.6	87	27.8	75.5	76
1889.....	37.9	75.0	37	25.4	68.5	74	28.8	74.3	71	19.6	69.2	79
1890.....	37.8	78.2	44	34.0	72.8	60	32.7	71.7	211	33.0	74.5	94
1891.....	35.5	71.4	41	23.3	70.7	76	27.5	74.5	65	31.9	74.4	60
1892.....	33.5	72.9	44	30.5	69.7	103	22.8	73.2	215	27.0	73.7	145
Total .....	391.1	784.9	435	309.3	793.4	682	278.2	828.0	1,016	306.0	811.0	865
Mean .....	35.5	71.3	39.5	28.1	72.1	62.0	25.3	75.3	92.4	27.8	73.7	78.6

Years.	March.			April.			May.			June.		
	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.	Dew-point.	Relative hu- midity.	Deaths.
1882.....	33.5	69.3	72	39.3	68.1	57	48.3	70.9	44	60.0	64.5	29
1883.....	25.8	65.9	80	42.1	74.0	59	50.2	65.0	32	62.9	70.1	21
1884.....	33.1	72.9	68	36.6	62.1	55	51.4	66.0	30	61.6	71.4	19
1885.....	24.0	67.0	82	37.7	59.4	83	50.0	68.1	46	62.9	70.1	25
1886.....	32.0	70.8	76	46.9	75.7	72	55.3	80.4	30	64.2	83.2	25
1887.....	23.9	59.6	47	37.1	61.7	54	56.0	69.3	30	59.7	68.0	18
1888.....	27.2	69.4	92	37.3	59.1	52	53.5	74.5	33	61.8	70.0	14
1889.....	31.6	68.2	89	42.3	70.9	55	54.5	73.2	22	62.1	77.2	16
1890.....	28.5	67.2	89	40.1	63.6	65	53.2	72.8	65	66.7	68.9	37
1891.....	28.1	72.8	121	40.6	61.9	245	49.0	68.4	140	61.4	74.0	48
1892.....	26.8	70.1	120	38.7	64.8	64	52.0	69.2	48	66.2	75.0	32
Total .....	305.5	753.2	936	438.7	721.3	861	573.4	777.8	530	689.5	792.4	284
Mean .....	27.7	68.5	85.1	39.9	65.6	78.3	52.1	70.7	47.3	62.7	72.0	25.8

TABLE XLI.—Showing the percentage of deaths from pneumonia, bronchitis, and congestion of the lungs; also from total acute lung diseases to total population, and the total deaths therefrom since 1876 to the year 1892, inclusive.

Years.	Total population in each year.	Total deaths from all causes in each year.	Deaths from pneumonia in each year.	Percentage of deaths from pneumonia to total deaths.	Percentage of deaths from pneumonia to total population.	Deaths from bronchitis in each year.	Percentage of deaths from bronchitis to total deaths.
1876	157,600	4,160	423	10.2	2.67	77	1.85
1877	162,375	4,208	350	8.3	2.21	78	1.85
1878	167,300	4,231	337	8.0	2.13	50	1.18
1879	172,377	4,309	406	9.4	2.37	98	2.28
1880	177,638	4,207	328	7.8	1.90	107	2.55
1881	183,060	4,136	328	7.9	1.80	98	2.37
1882	188,653	4,571	320	7.0	1.70	88	1.92
1883	191,980	4,286	314	7.3	1.60	87	2.02
1884	200,000	4,814	317	6.6	1.60	131	2.73
1885	200,000	4,998	354	7.0	1.77	101	2.00
1886	205,000	4,674	286	6.1	1.40	121	2.59
1887	210,000	4,665	251	5.4	1.20	128	2.75
1888	225,000	5,040	323	6.4	1.40	104	2.06
1889	250,000	5,152	331	6.4	1.32	134	2.60
1890	250,000	5,564	416	7.5	1.76	181	3.25
1891	250,000	5,720	517	9.0	2.06	227	3.97
1892	260,000	6,098	527	8.6	2.03	219	3.58
Total and mean	3,450,983	80,833	6,128	7.1	1.71	2,029	2.31

Years.	Percentage of deaths from bronchitis to total population.	Deaths from congestion of the lungs in each year.	Percentage of deaths from congestion of the lungs to total deaths.	Percentage of deaths from congestion of the lungs to total population.	Total deaths from acute lung diseases in each year.	Percentage of deaths from acute lung diseases to total deaths.	Percentage of deaths from acute lung diseases to total population.
1876	.50	59	1.42	.31	550	13.5	2.5
1877	.48	44	1.05	.27	472	11.2	2.1
1878	.30	56	1.32	.33	443	10.5	2.7
1879	.57	86	2.00	.50	500	13.7	3.4
1880	.60	74	1.80	.41	509	12.1	2.9
1881	.53	68	1.64	.37	494	11.9	2.7
1882	.46	77	1.70	.40	485	10.6	2.6
1883	.45	69	1.60	.36	470	11.0	2.5
1884	.65	68	1.42	.34	516	10.7	2.6
1885	.50	79	1.58	.39	534	10.6	2.7
1886	.60	56	1.20	.27	463	10.0	2.3
1887	.60	73	1.56	.35	452	9.7	2.2
1888	.46	69	1.30	.30	496	9.8	2.2
1889	.53	69	1.34	.30	534	10.3	2.1
1890	.72	73	1.31	.30	670	12.0	2.7
1891	.90	98	1.71	.39	842	14.7	3.4
1892	.81	131	2.15	.50	877	14.2	3.4
Total and mean	.54	1,249	1.45	.34	9,406	10.9	2.6



TABLE XLII.—Comparative statement of deaths of persons 60 years of age and over, with percentages to total deaths and to total population for ten years, from 1882 to 1892.

Years.	Total pop- ulation.	Total deaths.	Deaths of persons 60 years of age and over.	Percent- age of deaths of those 60 years old and over to total deaths.	Number of deaths of those 60 years old and over to 1,000 pop- ulation.	Number of deaths of all ages to 1,000 of popula- tion.
1882-'83 .....	191,980	4,286	758	17.23	3.8	22.33
1883-'84 .....	200,000	4,814	811	16.84	4.0	24.07
1884-'85 .....	200,000	4,998	589	17.80	4.4	24.99
1885-'86 .....	205,000	4,674	875	18.72	4.2	22.80
1886-'87 .....	210,000	4,665	860	18.43	4.1	22.21
1887-'88 .....	225,000	5,040	959	19.03	4.2	22.40
1888-'89 .....	250,000	5,152	854	17.14	3.6	20.60
1889-'90 .....	250,000	5,564	966	17.36	3.8	22.25
1890-'91 .....	250,000	5,720	1,137	19.88	4.5	22.88
1891-'92 .....	260,000	6,098	1,208	19.78	4.6	23.45
Aggregate .....	2,241,980	49,011	9,325			
Mean for the decade .....				18.22	4.1	22.80

TABLE XLIII.—Comparative statement exhibiting general results of marriages, births, and deaths during the years 1888, 1889, 1890, 1891, and 1892.

Subjects.	Year ending June 30—				
	1888.	1889.	1890.	1891.	1892.
Marriages .....	1,212	1,162	1,316	1,289	1,448
Births .....	3,670	4,001	4,070	4,344	4,614
Deaths .....	5,040	5,152	5,564	5,720	6,098
Death rates .....	22.04	20.6	22.25	22.88	23.46
Deaths under 1 year of age .....	1,355	1,468	1,427	1,433	1,571
Deaths under 5 years of age .....	1,936	2,089	2,067	2,070	2,185
Deaths 50 years of age and over .....	1,387	1,341	1,472	1,635	1,790
Deaths in institutions .....	822	819	947	1,027	1,142
Causes of death:					
Measles .....	159	4	10	69	5
Scarlet fever .....	19	31	14	14	26
Diphtheria .....	69	65	137	164	182
Whooping cough .....	17	162	31	30	76
Typhoid fever .....	168	170	208	208	183
Malarial fever .....	77	111	103	80	85
Meningitis .....	77	75	90	87	88
Diarrhœal diseases .....	371	477	482	372	476
Croup .....	27	48	44	40	39
Acute lung diseases .....	405	536	776	842	887
Consumption .....	702	697	756	749	714
Bright's disease of the kidneys .....	60	39	58	63	69
Heart disease (excluding aneurisms) .....	279	270	273	337	345
Violence .....	160	154	216	202	222
All other diseases .....	2,360	2,313	2,366	2,463	2,701

TABLE XLIV.—*Mean temperature in the District of Columbia.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1870.....											44.6	34.0
1871.....	32.6	35.9	48.0	58.2	63.9	73.2	74.0	76.8	62.3	58.1	42.3	32.1
1872.....	31.7	33.7	35.4	56.0	67.4	75.4	81.8	79.0	69.0	65.5	42.5	30.3
1873.....	30.9	34.8	41.8	53.1	63.6	75.1	79.8	74.8	68.0	54.9	40.8	40.5
1874.....	40.3	37.2	44.5	47.6	63.8	77.5	78.9	71.6	70.1	55.9	44.6	39.2
1875.....	29.5	28.8	39.1	48.0	63.6	72.9	77.0	71.9	64.6	53.6	41.0	36.8
1876.....	40.8	36.7	39.4	51.4	64.5	75.8	81.4	75.5	65.2	50.7	45.2	26.5
1877.....	29.4	39.4	41.0	52.9	61.9	73.9	77.8	76.3	66.9	58.6	46.2	41.8
1878.....	33.5	39.8	49.4	58.3	62.5	69.1	80.2	75.0	68.9	57.0	45.1	33.3
1879.....	30.8	31.6	43.5	51.8	65.3	72.9	78.6	73.9	64.4	62.0	45.6	41.1
1880.....	41.9	40.8	41.8	55.5	70.5	73.5	76.7	74.9	67.9	54.9	40.2	29.0
1881.....	27.6	32.8	40.1	50.3	67.0	70.7	77.4	76.5	77.0	62.9	47.5	41.7
1882.....	33.2	40.4	44.1	50.8	59.2	73.8	76.0	73.9	69.1	60.9	42.9	34.1
1883.....	29.6	37.5	37.6	50.9	63.6	74.4	76.8	72.1	65.1	56.9	47.2	36.9
1884.....	29.4	40.9	42.2	50.9	64.4	72.5	74.2	74.2	71.7	59.6	44.7	36.0
1885.....	32.9	26.9	34.5	53.1	62.3	71.1	77.8	73.4	66.1	54.7	45.3	37.5
1886.....	28.9	32.2	42.0	55.5	62.1	69.9	73.9	73.1	69.3	57.6	46.1	30.7
1887.....	32.9	38.9	38.5	51.6	67.9	72.1	80.5	73.2	65.0	55.4	44.9	37.2
1888.....	29.2	35.7	37.5	52.9	62.7	73.0	72.9	73.9	63.2	50.5	45.8	35.2
1889.....	36.8	29.4	42.3	53.2	63.8	69.8	74.2	70.6	65.6	52.5	46.2	45.6
1890.....	44.2	43.4	41.4	53.7	63.8	74.9	75.1	73.5	67.7	56.2	47.8	34.2
1891.....	37.3	41.5	38.5	55.4	61.3	71.4	72.0	74.5	70.2	54.4	43.9	43.1
1892.....	31.7	36.9	37.7	51.5	63.8	76.2						
Mean.....	33.4	37.0	40.9	50.5	64.2	73.1	77.1	74.3	67.4	56.7	44.5	36.2
Maximum.....	76.6	78.0	79.0	90.0	96.0	102.5	102.8	101.0	104.3	92.3	80.0	73.0
Year.....	1890	1874	1880	1872	1880	1874	1874	1881	1881	1881	1879	1873
Minimum.....	14.0	2.3	4.0	22.5	33.5	45.0	53.0	50.0	38.0	26.0	12.5	13.0
Year.....	1881	1886	1873	1875	1876	1891	1890	1874	1879	1873	1880	1880

TABLE XLV.—*Mean relative humidity in the District of Columbia.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual mean.
1874.....									72.2	68.7	66.1	65.5	66.8
1875.....	73.6	67.2	69.0	65.1	53.7	64.2	70.3	81.1	70.9	70.1	72.0	79.1	69.7
1876.....	68.0	69.6	67.2	59.6	64.7	65.3	64.5	73.2	72.8	68.9	74.1	69.5	68.1
1877.....	74.9	61.9	66.4	63.6	61.7	71.6	71.7	71.3	75.9	74.8	73.2	71.3	69.9
1878.....	76.8	70.4	63.8	63.0	66.6	66.7	69.5	77.3	77.0	71.6	72.4	71.4	70.5
1879.....	72.3	67.0	58.6	57.7	61.7	63.9	60.4	71.9	71.3	67.4	64.3	71.9	65.7
1880.....	74.1	65.3	65.8	55.5	58.5	63.0	65.1	70.8	68.9	67.9	70.5	74.2	66.6
1881.....	77.6	73.4	67.3	66.0	69.3	72.7	67.8	70.9	74.4	73.4	74.9	76.0	72.0
1882.....	80.9	72.6	69.3	68.1	70.9	74.9	67.1	75.2	77.2	78.0	71.6	71.3	73.2
1883.....	81.6	73.5	65.9	74.0	64.9	70.1	68.9	67.9	74.3	77.0	71.0	75.5	72.0
1884.....	77.9	78.5	72.9	62.1	66.0	71.4	72.3	75.1	69.8	68.3	70.3	79.4	72.0
1885.....	71.1	72.2	67.0	59.4	68.1	60.0	68.8	73.7	71.2	78.6	70.2	69.1	69.6
1886.....	81.4	76.2	70.8	75.7	80.4	83.2	74.4	75.0	73.7	70.0	63.3	73.7	74.8
1887.....	67.9	70.6	59.6	61.7	69.3	68.0	71.9	72.8	72.9	65.9	60.1	69.7	67.5
1888.....	73.6	75.5	69.4	59.1	74.5	70.0	77.0	79.6	83.8	76.8	75.0	68.5	73.6
1889.....	74.4	69.2	68.2	69.2	73.2	77.2	80.4	79.0	81.3	76.5	78.2	72.8	75.0
1890.....	71.7	74.5	67.2	63.6	72.8	68.9	71.2	77.7	81.7	76.4	71.4	70.7	72.3
1891.....	74.5	74.4	72.8	61.9	68.4	74.0	96.7	81.7	82.8	73.5	72.9	69.7	75.2
1892.....	73.2	73.7	70.1	64.8	69.2	75.0							
Mean.....	74.8	71.3	69.0	63.9	66.4	69.4	71.5	74.8	73.0	72.6	71.0	72.2	70.8

TABLE XLVI.—*Rainfall in the District of Columbia.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1870											1.57	0.46	.....
1871	2.20	1.99	5.92	1.54	3.45	4.78	6.10	1.59	2.70	1.50	4.85	1.36	37.98
1872	0.23	0.93	3.22	1.74	1.43	2.78	0.82	5.72	3.92	4.83	2.75	2.49	30.86
1873	3.73	4.69	3.03	3.19	5.21	1.63	4.30	6.83	3.48	5.62	3.02	0.97	45.70
1874	1.89	1.84	2.06	5.65	2.82	3.47	2.34	1.71	7.84	0.29	2.08	2.59	34.58
1875	1.86	2.65	3.96	2.29	1.01	2.06	3.05	12.93	1.98	1.86	3.95	3.51	41.11
1876	1.68	3.50	5.52	2.43	3.02	4.59	5.12	4.17	10.81	2.99	2.83	1.30	47.96
1877	3.73	1.16	3.58	4.87	2.26	5.92	6.50	2.74	4.93	6.50	7.18	3.22	52.59
1878	4.77	2.54	4.31	3.32	5.27	6.33	8.37	8.89	2.46	5.86	3.03	4.94	60.09
1879	3.13	1.87	1.74	2.39	1.58	3.29	3.36	7.36	1.56	0.79	1.10	4.66	32.83
1880	2.51	1.71	5.60	3.81	3.37	3.52	2.25	3.83	3.42	2.31	2.48	4.02	38.83
1881	5.14	4.01	6.61	2.08	1.86	5.71	1.67	1.07	2.19	3.29	2.45	6.12	42.20
1882	7.09	5.09	3.75	2.55	5.00	2.33	4.46	4.44	7.84	0.53	1.33	2.38	46.79
1883	3.15	5.08	3.27	4.09	2.50	8.55	4.73	3.30	4.33	2.63	1.19	2.89	45.71
1884	5.59	6.84	7.24	1.86	3.09	6.95	7.39	1.01	0.14	1.73	3.42	4.70	49.96
1885	4.46	4.63	1.53	1.71	2.85	3.30	3.03	6.49	2.15	8.69	3.33	2.67	44.84
1886	5.01	4.32	6.41	2.71	10.60	6.75	10.63	2.43	1.79	1.20	2.88	3.44	58.17
1887	2.39	3.42	3.83	3.24	2.50	2.99	3.29	2.34	3.12	1.82	1.83	4.31	35.06
1888	2.99	3.19	4.53	1.89	4.77	3.53	4.47	3.35	6.82	3.27	2.97	3.27	45.00
1889	4.05	2.47	4.20	6.13	10.69	5.01	8.13	3.07	3.88	4.48	6.03	0.19	61.33
1890	1.54	4.20	3.65	2.81	4.73	2.02	3.24	5.50	4.22	5.15	0.79	3.74	41.59
1891	6.14	4.49	8.84	2.94	3.72	4.61	8.40	4.18	3.12	2.24	1.47	2.80	53.05
1892	5.84	3.64	5.70	4.52	4.07	2.59	.....	.....	.....	.....	.....	.....	.....
Mean.....	3.46	3.21	4.22	3.21	3.90	4.21	4.84	4.41	3.94	3.21	2.83	3.00	.....

TABLE XLVII.—*Statement showing the number of cases of diphtheria and scarlet fever reported, together with number of deaths from each, with percentage, average age of patients, and number by sex and color, for the year ended June 30, 1892.*

## DIPHTHERIA.

Months.	Cases of diphtheria reported.	Deaths from diphtheria.	Percentage of deaths from diphtheria to cases.	Average age of those attacked by diphtheria.	White males (diphtheria).	White females (diphtheria).	Colored males (diphtheria).	Colored females (diphtheria).
1891.								
July.....	39	14	35.9	6.7	11	11	7	10
August.....	70	19	27.1	6.2	26	19	11	14
September.....	78	24	30.8	8.3	17	32	11	18
October.....	73	28	38.3	7.0	25	29	10	9
November.....	74	27	36.5	10.0	27	36	4	7
December.....	67	16	23.9	10.4	27	34	4	2
1892.								
January.....	30	7	23.3	13.2	10	16	1	3
February.....	25	8	32.0	6.1	10	12	1	2
March.....	26	5	19.2	10.1	9	10	1	9
April.....	20	8	40.0	5.8	3	9	2	6
May.....	33	13	39.4	10.4	11	16	3	3
June.....	18	8	44.4	10.1	6	3	2	7
Total.....	553	177	.....	.....	179	227	57	90
Mean.....	.....	.....	32.0	8.7	.....	.....	.....	.....



TABLE XLVII.—Statement showing the number of cases of diphtheria and scarlet fever reported, etc.—Continued.

## SCARLET FEVER.

Months.	Cases of scarlet fever reported.	Deaths from scarlet fever.	Percentage of deaths from scarlet fever to cases.	Average age of those attacked by scarlet fever.	White males (scarlet fever).	White females (scarlet fever).	Colored males (scarlet fever).	Colored females (scarlet fever).
1891.				Years.				
July .....	17	1	5.9	7.0	4	8	2	3
August .....	22	2	9.0	7.1	8	9	1	4
September .....	9			11.1	3	4		2
October .....	15	2	13.3	12.7	8	6		1
November .....	18			10.2	7	10		1
December .....	32			8.7	13	16	3	
1892.								
January .....	11	2	5.3	8.2	18	10		1
February .....	42	1	2.4	9.6	19	22		1
March .....	69	5	7.2	9.9	22	37	2	8
April .....	68	8	11.7	10.0	28	37	2	1
May .....	40	4	10.0	6.7	18	10		3
June .....	15			8.6	7	5		
Total .....	385	25			155	195	10	25
Mean .....			5.4	9.1				

TABLE XLVIII.—Statement showing the mortality from eleven prominent diseases, by months and quarters, during decade ended December 31, 1891.

Diseases.	January.	February.	March.	First quarter.	April.	May.	June.	Second quarter.	July.	August.	September.	Third quarter.
Pneumonia .....	472	464	554	1,490	542	255	245	1,042	70	87	92	249
Bronchitis .....	156	167	175	498	161	99	64	324	48	44	47	139
Congestion of the lungs .....	120	69	82	271	94	52	46	192	26	29	33	88
Phthisis pulmonalis .....	679	662	771	2,112	717	625	566	1,908	558	540	589	1,687
Diphtheria .....	86	58	47	191	58	43	51	152	50	90	130	270
Scarlet fever .....	57	55	86	198	80	65	58	203	28	23	20	71
Measles .....	53	84	85	222	33	33	26	92	23	4	4	31
Whooping cough .....	48	30	39	117	38	37	34	109	77	86	117	250
Diarrhoeal diseases .....	33	44	45	122	48	98	983	1,129	1,205	802	421	2,428
Typhoid fever .....	70	57	77	204	57	44	76	177	143	174	195	512
Tuberculosis .....	32	39	43	114	47	39	38	124	51	40	38	140

Diseases.	October.	November.	December.	Fourth quarter.	Total.	Monthly average.	Month of maximum intensity.
Pneumonia .....	142	235	374	751	3,532	294.3	March.
Bronchitis .....	88	104	135	327	1,288	107.3	March.
Congestion of the lungs .....	57	52	69	178	729	60.7	January.
Phthisis pulmonalis .....	586	597	638	1,821	7,528	627.3	March.
Diphtheria .....	129	128	111	368	981	82.3	October.
Scarlet fever .....	16	17	35	68	540	45.0	March.
Measles .....	4	29	65	98	443	36.9	March.
Whooping cough .....	55	34	45	134	610	50.8	September.
Diarrhoeal diseases .....	180	87	53	320	4,008	334.0	July.
Typhoid fever .....	215	148	139	502	1,395	116.2	October.
Tuberculosis .....	40	30	34	110	488	40.7	July.

*List of registered physicians practicing in the District of Columbia, 1892.*

Name.	Residence.	Name.	Residence.
Acker, Geo. N.....	913 16th st. NW.	Bogan, Samuel W.....	421 G st. NW.
Adams, Arthur C.....	808 11th st. NW.	Bogue, A. P.....	319 8th st. NE.
Adams, B. B.....	927 N. Y. ave. NW.	Bohrer, B. F.....	1100 13th st. NW.
Adams, C. B. S.....	422 8th st. SE.	Bond, Samuel S.....	813 1st st. NW.
Adams, James Osgood..	937 N st. NW.	Bonebrake, J. H.....	917 3d st. NW.
Adams, J. Lee.....	600 N. C. ave.	Bovee, J. W.....	916 15th st. NW.
Adams, Samuel S.....	1632 K st. NW.	Boss, Rufus D.....	18th and Grant Place NW.
Addison, Thomas.....	219 C st. NW.	Bowen, Charles H.....	601 Mass. ave. NW.
Ainsworth, F. C.....	729 18th st. NW.	Bowen, William Sinclair	1523 I st. NW.
Alderman, Z. W.....	1727 N. J. ave. NW.	Bowens, G. Jarvis.....	Howard University.
Alleger, Walter W.....	Takoma Park.	Boyd, J. A.....	1536 14th st. NW.
Allen, Charles.....	1320 G st. NW.	Boyle, Cornelius B.....	1615 S st. NW.
Ames, Delano.....	1600 13th st. NW.	Brackett, John E.....	1310 R. I. ave.
Antisell, Thomas, jr....	1311 Q st. NW.	Bradfield, J. D.....	1501 Conn. ave. NW.
Anderson, Frank.....	1707 N. Y. ave. NW.	Bray, John.....	1222 C st. SW.
Appleby, James F. R....	1430 33d st. NW.	Brayshaw, J. Lacey....	Bennings, D. C.
Armstrong, William J....	1629 Conn. ave.	Brewer, Madison Mills..	1524 29th st. NW.
Ashford, Edwin W.....	Emergency Hospital.	Briard, William H. L....	1017 15th st. NW.
Atkinson, Wade Hamp- ton.	1011 G st. NW.	Briscoe, Walter C.....	317 C st. NW.
Atkinson, J. Chambers..	General Land Office.	Bromwell, Josiah R.....	1147 Conn. ave.
Atwood, Oliver M.....	1935 11th st. NW.	Bronson, Charles E.....	938 E st. NW.
Ayres, William Watson..	1408 H st. NW.	Brooks, Floyd V.....	465 Fla. ave. NW.
Bacon, Charles A.....	1312 Conn. ave.	Brooks, John H.....	Brookland, D. C.
Babbitt, Z. B.....	810 11th st. NW.	Brooks, Philip E.....	320 3d st. SW.
Baggett, John E.....	Cor. Park and Pine sts.	Brown, Benjamin F.....	1029 17th st. NW.
Baker, Arthur H.....	Cor. 17th and Howard ave.	Brown, Charles W.....	902 14th st. NW.
Baker, Frank.....	1315 Corcoran st. NW.	Brown, Robert W.....	1224 R st. NW.
Baker, Leigh G.....	1016 14th st. NW.	Bruckheimer, Moses.....	737 6th st. NW.
Baker, R. W.....	1403 N. Y. ave. NW.	Brumbaugh, G. M.....	904 Mass. ave. NW.
Baker, William W.....	1610 Caroline st.	Bryan, Joseph.....	806 17th st. NW.
Baldwin, William O.....	1918 H st. NW.	Buck, Robert H.....	1512 9th st. NW.
Barry, Edmund.....	497 E st. SW.	Buchanan, M. C.....	918 Va. ave. SW.
Barrington, Richard L....	3514 N st. NW.	Budlong, O. W.....	250 8th st. NE.
Baldwin, Mosby.....	806 11th st. NW.	Bulkley, John W.....	805 12th st. NW.
Ball, Charles A.....	233 G st. NW.	Bunneymeyer, B.....	1433 U st. NW.
Balloch, E. A.....	1218 12th st. NW.	Burghart, Caroline A....	457 Mo. ave.
Baldwin, C. A.....	1926 I st. NW.	Burnett, Swan M.....	1770 Mass. ave.
Barclay, Rowan M.....	318 C st. NW.	Burke, Thomas W.....	1031 8th st. NW.
Banes, H. J.....	129 F st. NW.	Barutt, William W.....	1304 S st. NW.
Barker, Howard H.....	1116 H st. NW.	Burton, George C.....	810 8th st. NE.
Barber, J. M.....	907 E st. NW.	Burwell, J. Page.....	904 14th st. NW.
Barton, Wilfred M.....	336 B st. NW.	Busey, Samuel C.....	1545 I st. NW.
Barnes, S. M.....	430 College st. NW	Bushnell, John H.....	1122 11th st. NW.
Barrie, George.....	723 18th st. NW.	Beamansdorf, J. S.....	1344 G st. NW.
Barstow, Kate.....	712 East Capitol st.	Byrne, Charles C.....	Soldiers' Home, D. C.
Barry, J. P.....	2120 Pa. ave. NW.	Byrne, P. J.....	2115 H st. NW.
Bates, Newton.....	1233 17th st. NW.	Byrns, William F.....	35 B st. SE.
Baxter, John B. G.....	824 7th st. NE.	Cabaniss, George W.....	2304 6th st. NW.
Bayne, John W.....	116 2d st. SE.	Caldwell, Charles T.....	Cor. Sand 10th sts. NW.
Beall, Benjamin M.....	1627 14th st. NW.	Caldwell, William A.....	321 East Capitol st.
Beall, W. W.....	114 6th st. SE.	Callan, Cornelius V. N....	1422 F st. NW.
Beatty, Hugh W.....	631 2d st. NW.	Calvert, Finley H.....	1818 13th st. NW.
Beatty, Louis K.....	610 East Capitol st.	Cameron, Malcolm.....	915 E st. SE.
Beattie, Uray.....	910 East Capitol st.	Campbell, T. B.....	1859 Harewood ave. NW.
Beckett, George M.....	912 N. Y. ave.	Campbell, Thomas D....	Freedmen's Hospital.
Behrend, Adajah.....	1214 K st. NW.	Cannon, Walter D.....	1205 M st. NW.
Bell, William S.....	Falls Church, Va.	Capehart, E. Ashbourne	806 19th st. NW.
Belt, Oliver E.....	1313 H st. NW.	Cardoza, George M.....	1439 Pierce Place NW.
Bennett, Harrison H.....	617 F st. NW.	Carlisle, George M.....	330 C st. NW.
Bennit, William W.....	1928 14th st. NW.	Carman, Louis Dai.....	1351 Q st. NW.
Benson, C. W.....	1212 G st. NW.	Carmicheal, D. A.....	1308 F st. NW.
Beresford, George C.....	719 8th st. SE.	Carpenter, James A. S....	1210 H st. NE.
Berryhill, A. F.....	Langham Hotel.	Carpenter, John E.....	623 N. C. ave. SE.
Bermann, Isador.....	1016 I st. NW.	Carr, William P.....	1119 10th st. NW.
Bettes, Eugene.....	718 19th st. NW.	Carraber, J. V.....	820 Est. SE.
Bevier, W. D.....	1420 11th st. NW.	Carroll, James J.....	1322 13th st. NW.
Bidwell, W. D.....	918 14th st. NW.	Carroll, Joseph.....	2202 14th st. NW.
Bigelow, Horatio R.....		Carroll, R. L.....	948 R st. NW.
Billard, J. T.....	Laurel, Md.	Cecil, Thomas.....	1408 H st. NW.
Binns, Douglass.....	508 11th st. NW.	Chamberlin, William L..	944 N. Y. ave. NW.
Bird, James C.....	1336 G st. NW.	Chames, G. S.....	
Birdsall, C. W.....	1412 30th st. NW.	Chapman, N.....	921 G st. NW.
Bishop, Francis B.....	2210 Pa. ave. NW.	Chappell, John W.....	Tennallytown, D. C.
Blanchard, F.....	720 H st. NE.	Cherryholmes, W. K.....	2139 K st. NW.
Blackiston, Thomas C....	1141 7th st. NW.	Chew, Thomas I.....	226 East Capitol st.
Bland, Cora.....	1121 10th st. SW.	Childs, William E.....	Mount Pleasant, D. C.
Bliss, J. E.....	1012 14th st. NW.	Choate, Rufus.....	3267 O st. NW.
Boarman, Charles V.....	1104 Md. ave. SW.	Camp, Herbert M.....	111 California st. NW.
Bogan, Martin Van Bu- ren.	660 Mass. ave. NW.	Christie, Arthur.....	Anacostia, D. C.
		Clark, T.....	1400 K st. NW.



# REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA. 809

List of registered physicians practicing in the District of Columbia, 1892—Continued.

Name.	Residence.	Name.	Residence.
Clarke, James C .....	Homeopathic Hospital.	Eliot, Johnson .....	918 E st. NW.
Clarke, G. C .....	12 4th st. SE	Eliot, Llewellyn .....	1106 P st. NW.
Clement, Alfred B. C. ....	Mount Pleasant, D. C.	Elliot, Charles S .....	1114 N. Y. ave. NW.
Clemens, J. Edwin .....	223 5th st. SE.	Ellyson, R. M .....	Emergency Hospital.
Clemons, P. H .....	517 22d st. NW.	English, Charles H .....	1220 N. J. ave. NW.
Coe, Anton .....	1522 Caroline st.	Eslin, James T .....	901 U st. NW.
Cole, John T .....		Evbach, Amelia .....	21 3d st. NE.
Cole, W. F .....	1009 G st. NW.	Evans, W. B .....	1926 12th st. NW.
Cole, George R. L .....	424 7th st. SW.	Evans, Warwick .....	1105 9th st. NW.
Coggeshall, George A .....	2 Iowa Circle.	Falls, Effie L .....	923 M st. NW.
Coleman, Horace .....	936 K st. NW.	Featherstonhaugh, Thos .....	109 1st st. NE.
Collins, C. R .....	1125 14th st. NW.	Fenwick, George P .....	504 6th st. NW.
Collins, John T .....	623 2d st. NW.	Fields, William H .....	1641 Vermont ave.
Collins, E. J .....	823 11th st. NE.	Finney, A. B .....	928 I st. NW.
Compton, W. P .....	1732 K st. NW.	Fischer, G. W .....	Anacostia, D. C.
Connell, George E .....	3230 N st. NW.	Fisher, R. C .....	1628 K st. NW.
Cook, Benjamin J .....		Fisher, Henry C .....	1824 K st. NW.
Cooke, Robert R .....	1502 H st. NW.	Fitch, George W. H .....	1313 M st. NW.
Cook, G. Wythe .....	3 Thomas Circle.	Fletcher, G. H .....	926 24th st. NW.
Corbin, William E .....	1005 23d st. NW.	Forwood, W. H .....	Soldiers' Home.
Corbin, Eliakim L .....	603 La. ave.	Foster, Frank J .....	944 S st. NW.
Corey, Waterman .....	1305 R st. NW.	Foster, Romulus Adams .....	2029 Q st. NW.
Cornish, Mabel .....	225 1st st. SE.	Foster, W. W .....	909 L st. NW.
Corson, J. K .....	Washington Barracks.	Fowler, Will C .....	1143 5th st. NW.
Cottrell, Joseph F .....	828 12th st. NW.	Fox, George L .....	1803 H st. NW.
Coues, Elliott .....	1726 N st. NW.	Francis, John R .....	2112 Pa. ave. NW.
Coumbe, Oscar H .....	805 3d st. SE.	Franzoni, Charles W .....	810 H st. NW.
Cox, S. C .....	324 4 1/2 st. NW.	Freer, James A .....	1523 I st. NW.
Crook, Harrison .....	508 1/2 13th st. NW.	Freeze, H. H .....	514 7th st. NE.
Crosson, Henry J .....	Washington Asylum Hospital.	French, E. M .....	807 10th st. NW.
		French, Ricardo D .....	1316 T st. NW.
		French, B. F .....	800 A st. SE.
Crusor, Collins B .....	2813 Dumbarton ave.	Frick, E. B .....	
Cudlipp, Malcolm A .....	635 M st. NW.	Friedrich, Leon L .....	329 East Capitol st.
Custis, George W .....	110 East Capitol st.	Frost, E. F .....	Cor. C and 3d sts. NW.
Custis, J. B. G .....	110 East Capitol st.	Frost, J. W .....	902 3d st. NW.
Custis, Marvin A .....	631 East Capitol st.	Fry, Henry D .....	1133 14th st. NW.
Curtis, J. W .....	1711 8th st. NW.	Furcron, G. W .....	608 E st. NE.
Curtis, W. P .....	1727 10th st. NW.	Furniss, H. W .....	1905 K st. NW.
Cuthbert, Middleton F .....	1462 R. I. ave.	Gage, Mary E .....	529 N. J. ave. NW.
Daly, John A .....	912 N. Y. ave. NW.	Gaines, Richard L .....	2131 7th st. NW.
Daniel, Zadock T .....	1457 14th st. NW.	Gallagher, Matilda J .....	112 4th st. SE.
Danter, J. F .....	313 M st. NW.	Gallagher, M. F .....	621 E st. NW.
Darby, John J .....	451 O st. NW.	Gallagher, Patrick J .....	1843 9th st. NW.
Darling, Benjamin F .....	1923 Juniper st. NW.	Gardner, C. H .....	Washington Asylum.
Darling, Henry .....	Brightwood, D. C.	Gardner, Frank A .....	1016 14th st. NW.
Darrah, A. H .....	225 8th st. NE.	Gardner, Joseph N .....	902 23d st. NW.
Davidson, George S .....	428 H st. NW.	Gatchell, William F .....	803 East Capitol st.
Davies, James .....	318 Ind. ave. NW.	Geddes, William .....	221 E st. NW.
Davis, C. A .....	1013 16th st. NW.	Geddings, R. M .....	1813 M st. NW.
Dawson, C. F .....	135 Carroll Place SE.	Gibbs, B. Frank .....	1608 17th st. NW.
Deale, Henry B .....	1224 14th st. NW.	Gibbs, Edwin A .....	1608 13th st. NW.
Dean, Julien W .....	Bennings, D. C.	Gibbs, Thomas F .....	935 R. I. ave.
De Carré, Alfred .....	1112 13th st. NW.	Gibson, R. H .....	1215 C st. SW.
Demarest, C. L .....	224 4 1/2 st. NW.	Gilbert, Charles B .....	1011 H st. NW.
Dennison, Ira Warren .....	Homeopathic Hospital.	Gill, William T .....	1327 5th st. NW.
Dexter, James E .....	453 C st. NW.	Gillett, Hubd .....	Cor. 5th and I sts. NW.
Dillenback, William J .....	Childrens' Hospital.	Gillum, C. F .....	2024 13th st. NW.
Dixon, J. H .....		Gladmon, Edwin .....	605 2d st. NW.
Dolan, P. V .....	505 12th st. NW.	Glazenbrook, Larkin .....	1023 Conn. ave. NW.
Donohoe, Florence .....	1134 8th st. NW.	Gleeson, James K. P .....	1316 R st. NW.
Dooley, F. X .....	1406 Corcoran st. NW.	Glennan, J. D .....	420 Boundary st. NW.
Dorsey, Lloyd .....	913 Mass. ave. NW.	Glennan, Patrick .....	420 Boundary st. NW.
Dougal, C. H .....	1219 12th st. NW.	Gobrecht, William H .....	1222 11th st. NW.
Dovilliers, Leopold V .....	1221 13th st. NW.	Gobron, L. C .....	
Douglass, J. F .....	516 7th st. NE.	Godding, William W .....	Government Hospital
Drane, F. C .....			for Insane.
Drawbaugh, John H .....	627 Pa. ave. NW.	Godfrey, Charles E .....	616 F st. NW.
Drenford, George .....	Catholic University, Brookland.	Goldsborough, Edward K .....	1331 K st. NW.
		Goodell, Charles F .....	
Duffey, H. Clarence .....	1255 9th st. NW.	Goodman, William R .....	920 B st. SW.
DuBose, George Parcel .....	2903 Q st. NW.	Goodall, H. S .....	216 13 1/2 st. SW.
Dufour, Clarence R .....	1009 H st. NW.	Goodwin, Eugene .....	1016 10th st. NW.
Dulaney, Joshua L .....	926 I st. NW.	Gotwols, Alfred L .....	1224 9th st. NW.
Duryee, Alfred C .....		Grace, T. J .....	606 13th st. NW.
Dutton, George .....	1121 10th st. NW.	Goolrick, Peter .....	728 11th st. NW.
Duvall, W. T. S .....	1009 L st. NW.	Graham, James F .....	1411 G st. NW.
Dyer, John I .....	1438 Corcoran st.	Graham, Neil F .....	617 2d st. NE.
Eaton, Parley H .....	1318 T st. NW.	Graham, R. H .....	907 N. Y. ave. NW.
Edes, Robert T .....	1214 18th st. NW.	Grande, Charles P .....	232 Mass. ave. NW.
Edson, Susan A .....	1308 I st. NW.		68 C st. NW.
Elbert, Samuel .....	Freedmen's Hospital.		



## 810 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*List of registered physicians practicing in the District of Columbia, 1892—Continued.*

Name.	Residence.	Name.	Residence.
Granger, W. W. ....	1518 Caroline st. NW.	Hunt, P. C. ....	2015 N st. NW.
Grant, John H. ....	Fort Myer, Va.	Huntoon, A. J. ....	1310 Q st. NW.
Grealish, D. N. ....	Anacostia, D. C.	Hutchins, W. S. ....	408 K st. NW.
Griffith, M. J. ....	1405 5th st. NW.	Hyatt, Franck. ....	900 K st. NW.
Green, A. I. ....	1436 Madison st.	Hollifield, H. B. ....	326 Mass. ave. NE.
Groot, S. I. ....	924 N. Y. ave. NW.	Ingram, Thomas Dar-	1305 H st. NW.
Grinder, George W. ....	923 9th st. NW.	lington.	
Gross, George. ....	311 East Capitol st.	Isbell, C. A. ....	1612 O st. NW.
Guiteras, D. W. ....	U. S. Navy.	Jackson, Albert E. ....	613 2d st. NW.
Gunnell, Francis M. ....	600 20th st. NW.	Jackson, Elmer E. ....	192 6th st. NW.
Hagner, Charles E. ....	1507 H st. NW.	Jameson, A. B. ....	1602 Vt. ave. NW.
Hagner, Daniel R. ....	1812 H st. NW.	Janey, Edgar. ....	12 Iowa Circle.
Hall, Arthur J. ....	421 H st. NW.	Jenkins, F. T. ....	2115 Pa. ave. NW.
Hall, Julia R. ....	903 N st. NW.	Jenner, Norman R. ....	908 9th st. NW.
Hamilton, John B. ....	924 17th st. NW.	Johnson, Albert E. ....	213 1st st. SE.
Hammett, Charles M. ....	644 F st. SW.	Johnson, Frank G. ....	215 9th st. SW.
Hammett, C. M., jr. ....	644 F st. SW.	Johnson, Henry A. ....	1009 G st. NW.
Hammond, Thomas V. ....	1713 H st. NW.	Johnson, H. L. E. ....	1400 L st. NW.
Hammond, William A. ....	13th and Princeton sts.	Johnson, J. B. ....	922 N. Y. ave.
Hance, T. F. ....	305 Mass. ave. NE.	Johnson, Joseph Tabor.	1728 K st. NW.
Handy, William E. ....	300 A st. SE.	Johnson, L. A. ....	709 C st. SW.
Hannon, Samuel L. ....	200 D st. NW.	Johnson, R. L. ....	1410 9th st. N. W.
Hansman, Theodore. ....	1310 I st. NW.	Johnston, W. W. ....	1603 K st. NW.
Hardesty, J. R. L. ....	1225 15th st. NW.	Jolliffe, Chas. C. ....	1005 9th st. NW.
Harding, Gena Russell. ....		Jolly, Bushrod B. ....	718 R. I. ave.
Harries, William Arthur	1741 N. J. ave. NW.	Jones, Alva W. ....	503 H st. NW.
Harrison, George B. ....	1345 F st. NW.	Jones, Ben. F. ....	
Harrison, J. Stinson. ....	1225 F st. NW.	Jones, Thos. E. ....	1428 M st. NW.
Harrison, J. Stewart. ....	Anacostia, D. C.	Jones, W. H. ....	
Hart, Mary Ester. ....	1109 G st. NW.	Jordan, Charles L. ....	606 13th st. NW.
Harvey, H. M. ....	610 B st. NE.	Julihn, M. L. ....	200 1/2 7th st. SW.
Harvey, L. A. ....	1142 7th st. NW.	Judah, L. A. ....	1810 10th st. NW.
Havenner, George C. ....	Anacostia, D. C.	Junghans, John H. ....	410 D st. NE.
Hawkes, W. H. ....	734 17th st. NW.	Kalusowski, Henry E. ....	911 L st. NW.
Hayes, Henry L. ....	113 1st st. NE.	Kalb, C. S. ....	Childrens' Hospital
Hayes, J. R. ....	807 Md. ave. NW.	Keech, Thomas A. R. ....	424 East Capitol st.
Haskins, H. W. ....	1510 Erie st. NW.	Kennedy, Charles T. ....	205 G st. NW.
Hawkhurst, H. H. ....	1016 14th st. NW.	Keenan, John F. ....	923 Va. ave. SW.
Hazen, William P. C. ....	511 East Capitol st.	Kehrer, Augustus B. ....	1213 L st. NW.
Hazen, David P. ....	407 6th st. SW.	Kelley, John T. ....	Columbia Hospital
Heger, Anthony. ....	1814 G st. NW.	Kelly, Daniel J. ....	1635 19th st. NW.
Heiberger, Ida J. ....	129 D st. NW.	Kempster, Walter. ....	1701 Conn. ave. NW.
Heiser, U. H. ....	1204 H st. NE.	Kerr, James. ....	816 17th st. NW.
Heinecke, G. B. ....	804 11th st. NW.	Keyes, Charles W. ....	817 L st. NW.
Henderson, George. ....	817 T st. NW.	Kentz, John. ....	3005 P st. NW.
Henion, Egbert B. ....	Willard's Hotel.	Kimball, Ephraim G. ....	911 Mass. ave. NW.
Helton, A. S. ....	409 4th st. NE.	Kincaid, D. H. ....	804 10th st. NW.
Henderson, P. M. ....	119 Pierce st. NW.	King, A. F. A. ....	726 13th st. NW.
Herbert, J. Wells. ....	205 H st. NW.	King, Ernest F. ....	1116 M. st. NW.
Herron, A. L. ....	318 Pomeroy st. NW.	King, William R. ....	812 11th st. NW.
Herbert, J. W. ....	906 8th st. SE.	Kingsman, Richard. ....	701 East Capitol st.
Herman, Meyer. ....	449 1st st. SE.	Kinyoun, J. I. ....	Marine Hospital Service
Heron, George H. ....	1214 6th st. NW.	Kirby, E. W. ....	485 Pa. ave. NW.
Heron, William H. ....	1214 6th st. NW.	Kleinschmidt, C. H. ....	3045 N st. NW.
Hickling, D. Percy. ....	221 3d st. NW.	Klemm, John W. ....	216 F st. NE.
Hill, Richard S. ....	213 1/2 E st. NW.	Knight, Samuel H. ....	514 5th st. NW.
Hines, J. M. ....	907 M st. NW.	Kober, George M. ....	1819 Q st. NW.
Hinds, Clara Bliss. ....	1331 N st. NW.	Kolipinski, Louis. ....	625 I st. NW.
Hintz, Felix. ....	Cor. 9th and D sts. NE.	Koonen, Charles K. ....	Providence Hospital.
Hislop, Margaret. ....	313 M st. NW.	Kramer, T. B. ....	634 A st. SE.
Hodgson, Charles S. ....	1302 4th st. NW.	Krogstad, Henry. ....	1402 Mass. ave. NW.
Hodges, J. Walter. ....	201 2d st. SE.	Lacy, H. A. ....	316 B st. SE.
Hoehling, Adolph. ....	1748 Q st. NW.	LaFetra, G. H. ....	606 9th st. NW.
Hoffman, W. J. ....	222 E st. NW.	Lamb, D. S. ....	800 10th st. NW.
Hoffman, Milt. ....	1233 Mass. ave. NW.	Lamb, John Melvin. ....	706 B st. SW.
Holden, Raymond T. ....	802 6th st. SW.	Landers, Thomas. ....	1022 8th st. NW.
Holmes, Charles. ....	1737 11th st. NW.	Lang, Charles J. ....	718 10th st. NW.
Hood, Thomas B. ....	1009 O st. NW.	Latimer, George. ....	1326 N. Y. ave. NW.
Hoover, Franklin P. ....	1615 13th st. NW.	Leach, Hamilton E. ....	716 13th st. NW.
Hore, Cassius W. ....	400 7th st. SW.	Lee, George. ....	1333 Vt. ave.
Horrigan, William D. ....	2508 P st. NW.	Lee, William. ....	2111 Pa. ave. NW.
Houston, Samuel P. ....	1410 10th st. NW.	Leepere, Matthew. ....	606 11th st. NW.
Howard, Horatio N. ....	918 Mass. ave.	Leech, D. Olin. ....	722 H st. NE.
Howard, James H. ....	1724 8th st. NW.	Leech, Frank. ....	631 Md. ave. NE.
Howard, Joseph T. ....	1126 9th st. NW.	Leech, George A. ....	2217 13th st. NW.
Howard, Joseph T. D. ....	1126 9th st. NW.	Lee, T. E. ....	1322 14th st. NW.
Howell, Arnold G. ....	244 3d st. SW.	Lee, A. H. ....	639 Pa. ave. SE.
Hubett, Wm. Wheeler. ....	126 Carroll st. SE.	Leatherman, M. E. ....	1608 14th st. NW.
Hughs, William D. ....	216 G st. NW.	Leopard, Benjamin F. ....	1405 N. Y. ave. NW.
Hull, Theodore L. ....	1413 5th st. NW.	Lighthill, August P. ....	1017 15th st. NW.
Hunt, H. J. ....	118 B st. NW.	Lieber, Francis. ....	1322 18th st. NW.

## List of registered physicians practicing in the District of Columbia, 1892—Continued.

Name.	Residence.	Name.	Residence.
Lighthill, Edward B....	1017 15th st. NW.	Merriam, Ephraim C....	622 N. J. ave. NW.
Liddell, Henry .....	1344 R st. NW.	Metzerott, John H .....	Garfield Hospital.
Lincoln, N. S. ....	1514 H st. NW.	Middleton, Rosier .....	1212 9th st. NW.
Ling, E. G., jr. ....	2210 M st. NW.	Miller, H. C. ....	702 10th st. NW.
Linn, H. C. ....	Health office.	Miller, Thomas .....	1616 7th st. NW.
Little, J. J. ....	1511 R st. NW.	Miller, William L. ....	410 K st. NW.
Little, Joseph W. ....	1313 14th st. NW.	Minor, Michael .....	715 8th st. SW.
Littlewood, James B. ....	415 B st. NE.	Moffatt, Samuel S. ....	719 11th st. NW.
Lochboehler, George .....	55 K st. NW.	Moffitt, M. M. ....	127 B st. NW.
Long, William .....	1018 19th st. NW.	Montgomery, W. S. ....	1912 11th st. NW.
Longshaw, Annie M. ....		Mohun, T. B. ....	1005 8th st. NW.
Lopaz, A. J. ....	Howard University.	Moore, Mark W. ....	1203 North Capitol st.
Lorini, Raphael .....	813 Vt. ave. NW.	Moore, V. A. ....	1133 13th st. NW.
Lovejoy, J. W. H. ....	900 12th st. NW.	Moran, John F. ....	2420 Pa. ave. NW.
Lowe, H. M. ....	507 Elm st. NW.	Morgan, Edwin Lee .....	1919 Pa. ave. NW.
Luce, Charles R. ....	206 B st. SE.	Moseley, E. B. ....	1814 G st. NW.
Lucy, W. A. ....	Freedmen's Hospital.	Morgan, J. Dudley .....	907 E st. NW.
Luckett, William F. ....	1351 Corcoran st.	Moss, R. T. ....	1714 17th st. NW.
Macdonald, T. L. ....	226 8th st. SW.	Morris, G. G. ....	1407 N. Y. ave.
McAlister, John F. ....	1203 H st. NW.	Moss, E. E. ....	Garfield Hospital.
Machenek, C. H. ....	1118 N. Y. ave.	Morrison, Mary E. ....	1439 W st. NW.
Mackall, James McV. ....	1207 31st st. NW.	Miller, S. E. ....	1324 N. Y. ave. NW.
Mackall, Louis .....	3040 Dumbarton ave.	Morsell, William F. ....	1610 13th st. NW.
Mackall, Louis, jr. ....	3040 Dumbarton ave.	Mudd, Joseph A. ....	161 Mass ave. NE.
Mackey, Argyle .....	722 H st. NE.	Muhleman, Samuel A. ....	808 N. J. ave. NW.
MacPhail, William J. ....	809 E st. NW.	Muller, M. E. ....	1027 9th st. NW.
Maddox, William J. ....	809 E st. NW.	Muncaster, Magruder. ....	1405 N. Y. ave. NW.
Maddox, William R. ....	2139 Pa. ave.	Muncaster, Otho. ....	1405 N. Y. ave. NW.
Madison, Benjamin F. ....	417 B st. SE.	Muncaster, S. B. ....	1510 H st. NW.
Magruder, George L. ....	815 Vermont ave.	Mundell, John H. ....	1022 18th st. NW.
Mallam, Charles E. ....	1231 N. Y. ave. NW.	Munson, Reginald .....	1140 Conn. ave.
Maloney, James A. ....	1424 Q st. NW.	Murray, T. M. ....	800 17th st. NW.
Mallan, Thomas F. ....	117 B st. SE.	Murrell, E. H. ....	1700 19th st. NW.
Mannakee, E. O. ....	1212 G st. NW.	Nagle, R. E. ....	632 2d st. NE.
Manning, William P. ....	2002 14th st. NW.	Nash, Francis S. ....	Navy Department.
Markriter, John J. ....	705 6th st. NW.	Nason, W. A. ....	318 C st. NW.
Marmion, William V. ....	1108 F st. NW.	Napper, W. P. ....	1503 Marion st. NW.
Marr, Samuel S. ....	1415 10th st. NW.	Neale, Richard A. ....	1808 Pa. ave. NW.
Marshall, Charles H. ....	2712 P st. NW.	Neall, John H. ....	1603 7th st. NW.
Marshall, Collins .....	1010 11th st. NW.	Neely, John R. ....	205 1st st. SE.
Marsteller, A. A. ....	304 C st. NW.	Neilson, F. M. ....	600 N st. NW.
Marden, John Brice .....	1300 O st. NW.	Newgarden, George J. ....	Pension Office.
Martin, Thomas .....	310 N. Y. ave. NW.	Nevitt, J. R. ....	Washington Asylum
Marx, George .....	924 Mass. ave. NW.		Hospital.
Mason, John Edwin .....	2100 H st. NW.	Newlin, S. C. ....	1344 G st. NW.
Mason, William C. ....	801 L st. NW.	Newman, Henry M. ....	2403 Pa. ave. NW.
Matthews, Washington. ....	1262 N. H. ave. NW.	Newton, Lewis E. ....	403 L st. NW.
Mattingly, W. H. ....	330 Spruce st.	Nicholson, Leonard S. ....	1311 H st. NW.
Mattson, C. R. ....	304 E st. NW.	Nichols, J. Ben. ....	1133 13th st. NW.
Mauss, Richard J. S. ....	1710 9th st. NW.	Noble, T. H. C. ....	1715 9th st. NW.
Maxwell, Charles D. ....	1716 I st. NW.	Norcom, Henderson S. ....	351 Pa. ave. NW.
Mayce, F. E. ....	18 Iowa Circle.	Norman, Francis. ....	333 Spruce st., Le Droit
Mayfield, Clifton .....	1335 30th st. NW.		Park.
May, Henry C. ....	1826 9th st. NW.	Norris, Phoebe R. ....	903 M st. NW.
McArdle, Thomas E. ....	707 12th st. NW.	Norton, C. A. ....	923 8th st. NW.
McBlair, J. H. ....	2029 I st. NW.	Norton, Thomas M. ....	2033 H st. NW.
McCornack, Daniel P. ....	War Dept. 10th st. B'dg.	Norwood, John C. ....	Superior st., near 16th.
McDowell, Alex B. ....	1519 R. I. ave. NW.	Nourse, Henry D. ....	2823 H st. NW.
McDuffee, J. A. ....	1323 L st. NW.	Ober, George .....	210 B st. SE.
McGuire, Jas. C. ....	1527 16th st. NW.	Ogden, David M. ....	1232 9th st. NW.
McKim, J. Duncan .....	1330 N. Y. ave. NW.	Okie, William T. ....	1331 F st. N. W.
McKim, S. A. H. ....	25 5th st. SE.	O'Reilly, R. M. ....	1911 I st. NW.
McKimmie, Oscar A. M. ....	1333 N st. NW.	Owen, H. M. ....	Museum.
McKone, James J. ....	Central Dispensary.	Owen, S. K. ....	330 E st. NE.
McLain, J. S. ....	1924 N st. NW.	O'Reilly, Thomas .....	1140 North Capitol st.
McLaughlin, Thomas N. ....	825 14th st. NW.	Outlaw, John S. ....	1810 10th st. NW.
McLeod, Wilfred .....	Cor. Frederick and	Orleman, Daisy M. ....	742 5th st. NW.
	Prospect.	Osborne, William N. ....	627 G st. SE.
McMillan, S. M. ....	904 7th st. NW.	Osmun, Charles J. ....	917 12th st. NW.
McManus, Geo. R. ....	1720 9th st. NW.	Palmer, William G. ....	929 H st. NW.
McPherson, Dorsey M. ....	1822 15th st. NW.	Parcel, William G. ....	813 5th st. NW.
McVary, Stephen .....	616 2d st. SW.	Park, Francis B. ....	715 S st. NW.
McWhorter, W. D. ....	3330 Prospect ave. NW.	Parker, J. M. ....	502 8th st. SE.
McWilliams, A. ....	461 Mo. ave.	Parkinson, B. A. ....	2120 Brightwood ave.
Mead, Theodore .....	902 22d st. NW.	Parsons, Alfred V. ....	Takoma, D. C.
Meaney, W. B. ....	Hotel Oxford.	Parsons, Mary A. ....	1216 H st. NW.
Means, Samuel R. ....	Govt. Hospital for the	Patten, Joseph L. ....	2100 H st. NW.
	Insane.	Patterson, A. C. ....	Govt. Hospital for the
Meredite, J. C. ....	1710 F st. NW.		Insane.
Melvin, McCarty B. ....	814 4th st. SW.	Patterson, D. C. ....	919 I st. NW.
Merriam, Arthur C. ....	622 N. J. ave. NW.	Penrod, Hiram J. ....	Brookland, D. C.



## 812 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*List of registered physicians practicing in the District of Columbia, 1892—Continued.*

Name.	Residence.	Name.	Residence.
Penrose, George H.....	Soldiers' Home.	Sessford, Joseph S. F...	2131 K st. NW.
Perry, George N.....	1524 14th st. NW.	Shadd, F. J.....	Freedmen's Hospital.
Peter, Armistead.....	3044 O st. NW.	Shaw, J. W.....	908 McPherson Square.
Pettys, Charles V.....	1822 12th st. NW.	Shearer, Juliet G.....	1216 H st. NW.
Pettigrew, Augusta M...	520 8th st. NE.	Shekell, Abraham B....	1529 32nd st. NW.
Phelps, W. P.....	804 I st. NW.	Shoemaker, F.....	3115 O st. NW.
Phillips, W. T. R.....	1013 H st. NW.	Shoulters, G. H.....	1444 R. I. ave.
Pinchback, B. R.....	1920 11th st. NW.	Shorb, E. F.....	1124 5th st. NW.
Pile, Mayne M.....	1230 14th st. NW.	Shute, D. Kerfoot.....	1321 Q st. NW.
Pool, Benjamin G.....	945 R. I. ave.	Sherrett, William L....	
Pope, Gustavus W.....	1109 14th st. NW.	Shirley, John J.....	1534 14th st. NW.
Porter, Henry C.....	3035 O st. NW.	Sillers, Robert Fry....	313 H st. NW.
Posey, Cataldus H.....	1327 G st. NW.	Slaymaker, E. W.....	Tennallytown, D. C.
Postley, Charles E.....	1429 11th st. NW.	Slattery, John J.....	357 H st. SE.
Potts, Anne Longshaw...	Willard's Hotel.	Smith, Hugh M.....	1248 N. J. ave. NW.
Poulton, William E.....	426 4½ st. SW.	Smith, E. G.....	313 Mass. ave. NE.
Pratt, Daniel M.....	318 Ind. ave. NW.	Smith, Julia E.....	1100 M st. NW.
Prather, J. W.....	1722 4th st.	Smith, G. H.....	Belvedere Hotel.
Prentiss, Daniel W.....	1101 14th st. NW.	Smith, Joseph S.....	1837 Vt. ave. NW.
Price, J. P.....	602 H st. NE.	Smith, Thomas C.....	1133 12th st. NW.
Price, W. K.....	1124 23rd st. NW.	Smith, William T.....	
Pugh, Whitman H.....	1625 14th st. NW.	Smith, L. J.....	3230 N st. NW.
Purcell, McDaniel.....	483 N st. NW.	Snowden, Arthur A.....	1272 N. H. ave. NW.
Purdy, O. A.....	602 5th st. NW.	Snyder, Arthur.....	3051 N st. NW.
Purman, J. J.....	1435 Chapin st. NW.	Sohon, Frederick.....	512 I st. NW.
Purman, L. C.....	1723 5th st. NW.	Sonnenschmidt, Chas. W.	1307 H st. NW.
Purvis, Charles B.....	1118 13th st. NW.	Sothoron, Elmer H.....	1919 I st. NW.
Pyles, H. V.....	Anacostia, D. C.	Sothoron, James T.....	1919 I st. NW.
Pyles, Richard A.....	Anacostia, D. C.	Southworth, R. J.....	1220 36th st. NW.
Quackenbush, L. R.....	321 Pa. ave. NW.	Sowers, Z. T.....	1320 N. Y. ave.
Rand, Irving W.....	1444 Corcoran st. NW.	Spackman, Mary D.....	1634 16th st. NW.
Radcliffe, Samuel J.....	1523 K st. NW.	Sprague, J. T.....	1926 I st. NW.
Rankin, Thomas D.....	903 M st. NW.	Sprigg, William M.....	911 H st. NW.
Raub, J. F.....	405 2nd st. SE.	Squire, L. T.....	9 K st. NE.
Rauterberg, Lewis E....	510 5th st. NW.	Crack, Morris J.....	Govt. Hospital for the Insane.
Raud, C. F.....	1229 15th st. NW.	Stafford, John J.....	467 F st. SW.
Ravenburg, Rudolph....	1446 Pierce st. NW.	Stanford, Flora H.....	411 H st. NE.
Reed, L. W.....	425 M st. NE.	Stearns, S. S.....	1425 R. I. ave.
Reid, Lewis H.....	608 12th st. NW.	Stevens, Edward.....	1300 R. I. ave.
Reed, Elizabeth B.....	19th and C sts. SE.	Stevenson, Joseph G...	1007 F st. SW.
Reilly, James R.....	221 4½ st. S W.	Stevens, Henry C.....	224 D st. NW.
Reuss, Peter J.....	923 Md. ave. SW.	Stockstill, David C.....	1106 H st. NW.
Reyburn, Robert.....	2129 F st. NW.	Stone, Charles G.....	Brightwood, D. C.
Reyburn, Robert, jr....	714 13th st. NW.	Stone, T. Ritchie.....	1630 R. I. ave.
Rich, F. R.....	1245 31st st. NW.	Stone, I. S.....	1309 H st. NW.
Richmand, Paul.....	2201 14th st. NW.	Stone, James H.....	1309 H st. NW.
Richardson, Charles W...	1102 L st. NW.	Stoutenburgh, John A...	Washington Asylum.
Richardson, G. A.....	Hyattsville, Md.	Story, James J.....	1353 Md. ave. NE.
Richardson, S. H.....	2420 7th st. NW.	Stowell, Charles H.....	1326 N. Y. ave.
Riggs, Daniel H.....	1410 11th st. NW.	Stratton, W. C.....	1422 K st. NW.
Riley, T. G.....	638 B st. SW.	Street, Daniel B.....	24 I st. NW.
Ritchie, Louis W.....	3259 N st. NW.	Street, H. R.....	619 Mass. ave. NE.
Rixey, P. M.....	1707 N. Y. ave.	Strickler, M. B.....	912 East Capitol st.
Robbins, Henry A.....	1226 15th st. NW.	Stuart, James.....	Children's Hospital.
Robbins, A. J.....	1110 13th st. NW.	Suddarth, James L.....	821 North Capitol st.
Roberts, C. Wesley.....	1007 H st. NW.	Summy, Sidney A.....	315 F st. SW.
Roberts, Grace.....	420 C st. SE.	Sumner, Jeannette J...	1730 H st. NW.
Roberts, Palmer.....	912 East Capitol st.	Sutherland, Joseph H...	247 North Capitol st.
Roberts, Robert R.....	429 3rd st. NE.	Suter, Henderson.....	1252 31st st. NW.
Roberts, William E.....	715 G st. SE.	Swett, Fred Kimball...	934 French st.
Robertson, W. W.....	916 E st. NW.	Swain, C. A. T.....	604 Mass. ave. NW.
Robinson, Alex. L.....		Swormstedt, Lyman...	1455 14th st. NW.
Rosse, Irving C.....	1732 H st. NW.	Talbott, H. T.....	101 2nd st. NW.
Ross, R. H.....	813 Vt. ave.	Tancil, Arthur W.....	2116 Pa. ave.
Rowland, John A.....	600 6th st. NW.	Tarkington, Joseph A...	217 D st. NW.
Roy, Philip S.....	1005 9th st. NW.	Taylor, Leroy M.....	1221 Mass. ave. NW.
Ruffin, Sterling.....	1013 H st. NW.	Taylor, T. Archibald...	3rd st., cor. Mass. ave., NE.
Russell, H. C.....	1815 H st. NW.	Taylor, Thomas.....	238 Mass. ave. NE.
Russell, Charles F.....	123 B st. SE.	Tefft, F. O.....	1616 7th st. NW.
Rutherford, J. B.....	238 N. J. ave. NW.	Tennent, Edward S.....	938 P st. NW.
Saffold, James P.....	1604 8th st. NW.	Thomas, Carrie H.....	448 O st. NW.
St. Clair, F. A.....	1525 14th st. NW.	Thompson, Ashley.....	221 B st. NW.
St. Clair, Francis Alphonzo.	1525 14 st. NW.	Thompson, H. P. P.....	1335 N st. NW.
Samson, George C.....	2423 Pa. ave. NW.	Thompson, Solomon H...	Freedmen's Hospital.
Sawyer, J. Frank.....	601 P st. NW.	Thompson, J. Ford.....	804 17th st. NW.
Shaeffer, Edward M.....	813 14th st. NW.	Thompson, M. F.....	473 Md. ave. SW.
Scholl, Joseph.....	615 D st. NW.	Thompson, Stephen B...	1220 S st. NW.
Scott, James Foster.....	Columbia Hospital.	Thomssen, William J. R.	444 N. Y. ave. NW.
Seifritz, Paul.....	221 3rd st. NW.	Tompkins, Edmund Lee.	14th st. and Sheridan ave.
Sellhausen, Earnest A...	640 G st. NW.		



List of registered physicians practicing in the District of Columbia, 1892—Continued.

Name.	Residence.	Name.	Residence.
Toner, Joseph M.....	615 La. ave. NW.	Wendall, R. P.....	1601 Q st. NW.
Toner, J. E.....	Cor. 2nd and E sts. NE.	Werner, Philip P.....	608 Mass. ave. NE.
Torry, Turner.....	Anacostia, D. C.	West, George W.....	1102 14th st. NW.
Townshend, Smith.....	223 4½ st. NW.	West, Theodore S.....	604 H st. NW.
Trott, Thomas H.....	911 C st. NE.	Weston, Edward.....	1609 13th st. NW.
Trudgian, Josiah B.....	216 Ind. ave.	White, C. H.....	1707 N. Y. ave.
Turner, T. J.....	1707 N. Y. ave.	Whitney, Walter.....	1403 H st. NW.
Tyler, Abbie C.....	401 3rd st. NW.	White, James.....	Brightwood, D. C.
Upshaw, T. L.....	1901 11th st. NW.	Whitney, G. F.....	
Upham, William C.....	1539 T st. NW.	Wilder, James R.....	319 A st. NE.
Vale, F. P.....	937 H st. NW.	Wilkerson, B. M.....	513 13th st. NW.
Vaughan, Geo. T.....	518 B st. NE.	Williams, Green.....	1463 Pierce place.
Verdi, Tullio S.....	815 14th st. NW.	Wilmer, Wm. Holland.....	715 14th st. NW.
Van Rensselaar, John.....	825 14th st. NW.	Wilson, L. D.....	21 3rd st. NE.
Vincent, Thomas N.....	1221 N st. NW.	Wimberly, W. W.....	923 23rd st. NW.
Voss, Otto.....	711 11th st. NW.	Winslow, Caroline B.....	1 Grant Place.
Wagner, George H.....	120 F st. NE.	Winter, Eugene C. C.....	815 4½ st. SW.
Wagner, William F.....	Children's Hospital.	Winter, John T.....	1528 9th st. NW.
Wagner, R. S.....	Children's Hospital.	Wirt, William D.....	459 G st. NW.
Wales, Philip S.....	825 Vt. ave. NW.	Wise, Thomas W.....	1316 Q st. NW.
Walker, Allen.....	Brightwood, D. C.	Witmer, A. H.....	Govt. Hospital for the
Walsh, John E.....	924 Pa. ave. SE.		Insane.
Walsh, Ralph.....	1328 N. Y. ave.	Witman, H. O.....	1234 13th st. NW.
Walter, William F.....	487 H st. SW.	Wright, B. L.....	430 N. st. NW.
Walter, John.....	1010 F st. NW.	Wolhaupter, David P.....	801 H st. NW.
Walter, Joseph R.....	1921 Pa. ave. NW.	Woodman, Francis J.....	631 East Capitol st.
Ward, William W.....	2029 H st. NW.	Woode, C. H.....	Howard University.
Waring, J. H. N.....	1932 11th st. NW.	Woodson, L. Clay.....	616 F st. NW.
Warman, W. H. H.....	935 T st. NW.	Woodward, William	125 N. Y. ave.
Warren, Harriet.....	1121 24th st. NW.	Creighton.	
Warren, G. W.....	810 13th st. NE.	Wooley, George W.....	
Watson, James A.....	Anacostia, D. C.	Wormley, Joseph A.....	506 P st.
Watkins, S. L.....	1213 N st.	Woolen, Levin J.....	1701 9th st. NW.
Watts, S. Roger.....	1808 M st. NW.	Wooster, Mary L.....	2020 14th st. NW.
Weaver, C. A.....	1614 Q st. NW.	Yarnall, John H.....	3120 N st. NW.
Webb, E. Douglass.....	1228 14th st. NW.	Yarrow, H. C.....	814 17th st. NW.
Weller, J. R.....	1912 11th st. NW.	Young, Ed. R.....	915 E st. NW.
Wellington, J. R.....	Children's Hospital.	Young, G. B.....	Cedar st., Mt. Pleasant.
Wells, C. A.....	Hyattsville, Md.	Young, James T.....	1336 N. Y. ave. NW.
Wells, H. M.....	1707 N. Y. ave. NW.	Young, Parke G.....	1317 8th st. NW.

## REGISTERED UNDERTAKERS.

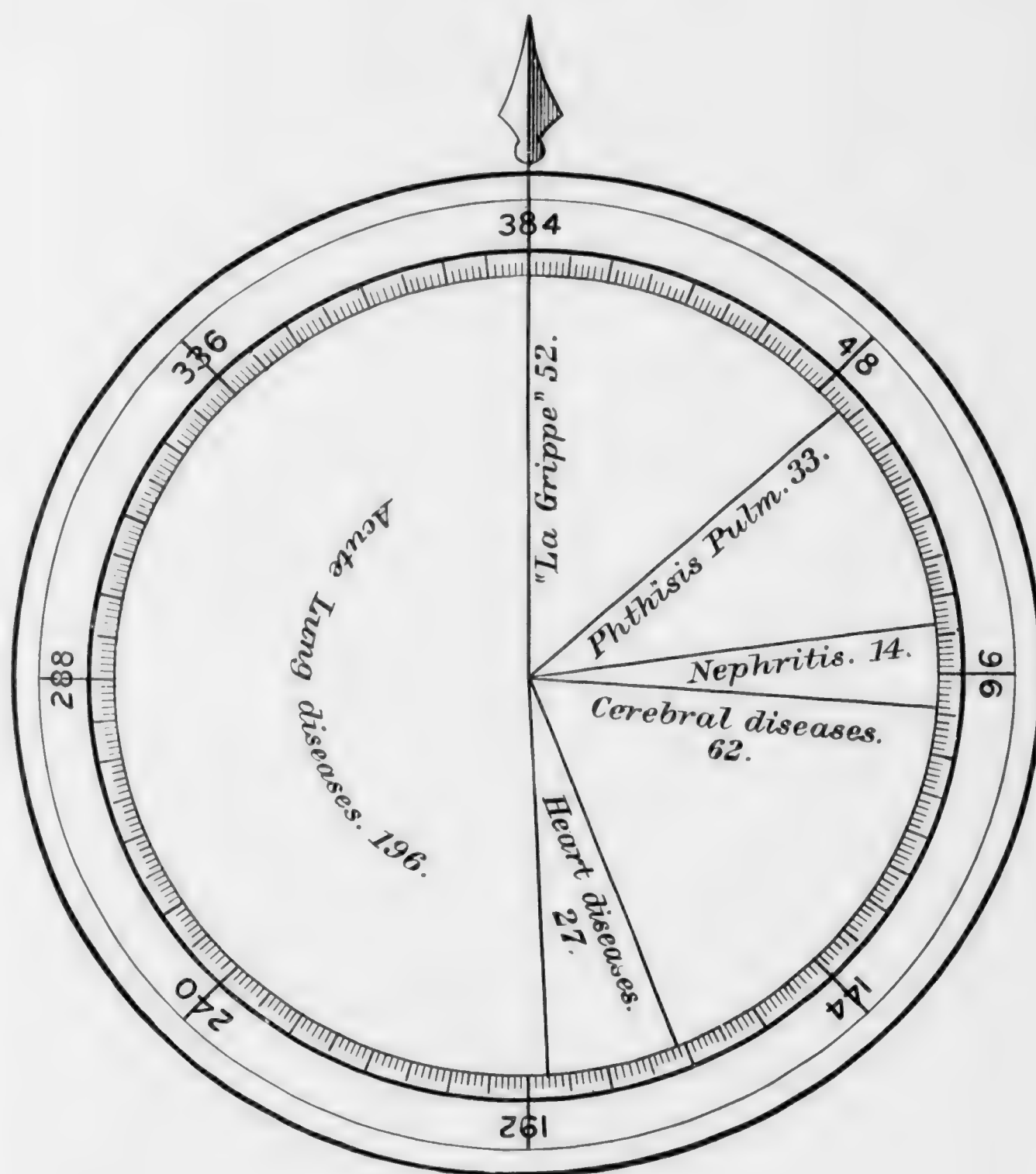
Anderson, J. H.....	Hillsdale, D. C.	Herbert, J. F.....	Harmony Cemetery.
Arnold, W. C.....	1169 20th st. NW.	Heenan, J. A.....	Holyrood Cemetery.
Barker, R. W.....	612 11th st. NW.	Hines, S. H.....	1223 7th st. NW.
Birch, Joseph F., Sons..	3043 M st. NW.	Jackson, Lemuel.....	Jones' Chapel.
Boteler, E. M.....	735 8th st. SE.	James, John S.....	Anacostia, D. C.
Bowles, Henry.....	2819 Dumbarton st.	Johnson, William T.....	Knox alley SW.
	NW.	Jordan, W. H.....	1617 12th st. NW.
Burgdorf, August.....	312 Pa. ave. NW.	Kickhany, William.....	52 2d st. Georgetown.
Betters, G. C. H.....	1408 S. C. ave. SE.	Kelly, William B.....	907 7th st. SW.
Berry, D. A.....	321 Va. ave. SW.	Lee, John William.....	322 Pa. ave. NW.
Bond, Thomas.....	Uniontown, D. C.	Mays, M. H.....	
Boesenberg & Weber.....	466 K st. NW.	Mitchell, J. M.....	914 11th st. SE.
Bellew, Mrs. M. A.....	623 N. J. ave. NW.	Minor, David.....	729 12th st. SE.
Barnes, J.....	427 4½ st. SW.	Murray, Thomas F.....	Anacostia, D. C.
Cain, R. S.....	1011 7th st. NW.	Nalley, Thomas R.....	1248 11th st. SE.
Cannon, Vinson & Co.....	509 N. J. ave. NW.	Pettit, Robert O. F.....	1244 33d st. NW.
Campbell, George.....	500 K st. SW.	Parker, A.....	1734 L st. NW.
Clark, Gabriel.....	Payne's cemetery.	Speare, W. R.....	940 F st. NW.
Clark, William E.....	515 11th st. SE.	Spindler, William F.....	1029 7th st. NW.
Clements, J. T.....	1235 32d st. NW.	Spindler, Fred. & Son.....	1233 7th st. NW.
Cohen, Moses.....	8th, bet. H and I sts.	Spindler, Fred. J.....	1707 7th st. NW.
	NW.	Sigourney, W. S.....	2824 Pa. ave. NW.
Cord, John William.....	St. Mary's Cemetery.	Sigourney, C. F.....	1410 14th st. NW.
Canter, C. E.....	1818 L st. NW.	Sims, John.....	2120 13th st. NW.
Davis, J. H.....	1626 11th st. NW.	Scott, Charles D.....	613 Pa. ave. SE.
Dabney, J. H.....	441 L st. NW.	Taylor, Clark J.....	515 11th st. SE.
Duvall, L. E.....	731 4½ st. SW.	Travers, D. T.....	1110 3d st. SW.
Dorsey, Robert.....	Tennallytown, D. C.	Talbert, R. T.....	34 H st. NE.
Freiss, Frederick W.....	1008 6th st. NW.	Wright, J. R.....	1337 10th st. NW.
Gant, Augustus.....	1408 S. C. ave. SE.	Wise, G. W.....	2900 M st. NW.
Gasch, Francis.....	Bladensburg, Md.	West, John.....	427 4½ st. SW.
Gawler, Joseph.....	1726 Pa. ave. NW.	Wood, Martin V.....	1168 20th st. NW.
Gayles, Elmer.....	1120 18th st. NW.	Winslow, James Henry.....	1206 R st. NW.
Geier, Frank, Sons.....	1113 7th st. NW.	Williams, Lewis.....	2247 Boundary st. NW.
Harvey, R. F., Sons.....	922 Pa. ave. NW.	Young, R. D.....	440 3d st. SW.
Hawkins, J. E.....	804 3d st. SE.	Young, William H.....	729 12th st.
Henry, George B.....	1003 3d st. SW.	Zurhorst, G. P.....	320 Pa. ave. SE.

## REGISTERED PLUMBERS.

Name.	Residence.	Name.	Residence.
Atchison, J. T.....	1316 14th st. NW.	Harrison, J. T., jr.....	Anacostia.
Anadale, J. A.....	1319 9th st. NW.	Jenks, W. S., & Co.....	717 7th st. NW.
Artz, Samuel.....	1213 32d st. NW.	Krause, John.....	1910 K st. NW.
Anderson, J. F.....	736 7th st. SE.	Keppel, John.....	32 H st. NE.
Atchison, C. B. & Co....	1306 14th st. NW.	Kerr, T. W.....	917 F st. NW.
Albinson, J. E.....	2026 14th st. NW.	King, F. A.....	1329 7th st. NW.
Anderson, W. L.....	622 Pa. ave. SE.	Kane & Roache.....	1318 Pa. ave. NW.
Adelsberg, D. S.....	Ind. ave. NW.	Koehane, Dennis.....	1405 12th st. NE.
Bond, J. D.....	133 Pa. ave. NW.	Kennedy & Schaefer....	306 Pa. ave. SE.
Brooks, R. C.....	622 D st. NW.	Lockhead, James.....	1404 Pa. ave. NW.
Brooks, E. F.....	531 15th st. NW.	Lockhead, Charles.....	3027 M st. NW.
Barnard, Edward.....	926 19th st. NW.	Lansdale, E. G.....	2134 Pa. ave. NW.
Benter, Max A.....	606 D st. NW.	Lyon, John.....	1308 Pa. ave. NW.
Butler, John A.....	933 5th st. NW.	Lee, William.....	4 3rd st. SE.
Busey, Walter.....		McAvoy, J. W.....	1829 H st. NW.
Bounds, Oliver.....	B. and O. R. R. Depot.	McBee, R.....	1127 7th st. NW.
Berry, William O.....	503 9th st. NW.	Moran, John.....	2126 Pa. ave. NW.
Brown, Thomas.....	1409 E st. NW.	McMahon, J. J.....	809 26th st. NW.
Bailey, O. N.....	811 4th st. SW.	McAvoy, G. F.....	1409 G st. NW.
Berry, William H.....		Mitchell, John.....	820 14th st. NW.
Brill A Hayden.....	308 Pa. ave. NW.	Miller, Thomas W.....	438 9th st. NW.
Barricks, C. E.....	214 13 $\frac{1}{2}$ st. SW.	McCarthy, J. J.....	1251 32nd st. NW.
Bowden & Beuchler.....	616 12th st. NW.	Marsden, F. L.....	505 7th st. SW.
Carmodity, John.....	1241 6th st. SW.	McCarthy, M. A.....	119 H st. NE.
Clarke, J. B.....	1214 M st. NE.	McGahn, E. P.....	416 10th st. NW.
Cannon, Thomas A.....	714 2d st. NE.	Murray, F. W.....	466 C st. NW.
Collier, W. E.....	1126 I st. SE.	Mills, R.....	1207 11th st. SE.
Connor, D. J.....	13 Mass. ave. NW.	Murphy, D. J.....	1102 Conn. ave. NW.
Caho, C. A.....	1333 5th st. NW.	McGrath, J. D.....	1602 33rd st. NW.
Corridon, J. J.....	517 M st. NE.	Mallet & Hodge.....	11th st. bet. G and H.
Campbell, G. R.....	1716 10th st. NW.	McCann, J. J.....	710 $\frac{1}{2}$ G st. SW.
Creamer, A. J. & Bro....	2200 11th st. NW.	Miller, G. H.....	1204 E st. NE.
Crawford, Geo. A.....	11 6th st. NE.	Noonan, T. B.....	11th and K sts. NW.
Campbell, W. P.....	1226 C st. SW.	Noonan, John.....	2413 H st. NW.
Carpenter, B. W.....	612 Pa. ave. SE.	Nolan, James.....	721 14th st. NW.
Cantwell, John.....	136 D st. SW.	Niland, P. T.....	2212 M st. NW.
Caverly, Edward & Co..	1425 N. Y. ave. NW.	Newmeyer, J. T.....	1305 5th st. NW.
Connor, J. A.....	702 O st. NW.	O'Brien, M. J.....	35 P st. NW.
Curtin, A. G.....	318 D st. NE.	O'Hagan, James.....	1917 Pa. ave. NW.
Daley, John.....	703 9th st. NW.	O'Hare, Edward.....	2118 Pa. ave. NW.
Dougherty, W. W.....	La. ave. and 6th st.	O'Donohue, Joseph.....	3055 M st. NW.
Dent, A. S.....	814 19th st. NW.	O'Brien, R. A.....	1340 4 $\frac{1}{2}$ st. SW.
Donaldson, T. S.....	312 13th st. NW.	O'Callaghan Bros.....	2151 Pa. ave. NW.
Daly, Peter.....	1220 Pa. ave. NW.	O'Donnell, D. A.....	1248 7th st. NW.
Daniels, J. W. & Bro....	1122 F st. NE.	Power, John A.....	424 9th st. NW.
Devereux & Gaghan.....	717 11th st. NW.	Pettit & Dripps.....	14th and B sts. NW.
Delaney, P. J.....	3203 P st. NW.	Pruitt, N.....	814 H st. NW.
Duffy & O'Day.....	1120 N. Cap. st.	Phillips, J. T.....	121 2nd st. SW.
Dessez, Charles E.....	720 17th st. NW.	Quinter, Joseph R.....	1414 R. I. ave.
Donohoe, J. G.....	1118 29th st. NW.	Rothwell, William.....	113 B st. SE.
Derrett, C. A.....	1115 Park Place NE.	Ragan, James.....	420 $\frac{1}{2}$ 11th st. NW.
Enwright, M. A.....	228 O st. NW.	Ragan, Cornelius.....	813 5th st. NE.
Eckloff, C. F.....	812 North Capitol st.	Robinson, M.....	238 R st. NW.
Erich, C. A.....	7th & F sts. SW.	Reynolds, William.....	Pa. ave. bet. 17th and 18th.
Edwards, T. J.....	1322 12th st. NW.		
Edwards, George T.....	808 L st. NW.	Rodbird, J. E.....	1129 1st st. NW.
Fitzhugh, J. B.....	306 East Capitol st.	Shedd, S. S., & Bro.....	400 9th st. NW.
Fitzgerald, Robert.....	22 G st. NW.	Shea, Daniel E.....	5th and I sts. NW.
Fingles, P. J.....	1129 5th st. NW.	Schaffer, G. F.....	625 La. ave. NW.
Gorman, Edward.....	807 14th st. NW.	Spearing, S. J.....	450 Pa. ave. NW.
Goodall, G. W.....	425 12th st. NW.	Suman, J. L.....	713 D st. NW.
Garratt, C. A.....	Le Droit Park.	Sherwood, S. H.....	821 Q st. NW.
Green, George A.....	418 C st. SE.	Sebastian, J. W.....	821 M st. N. W.
Goss, W. E.....	1241 4 $\frac{1}{2}$ st. SW.	Shepherd, Aaron R.....	2017 14th st. NW.
Horan, J. F.....	100 M st. SE.	Sullivan, J. D.....	402 13th st. NW.
Hay, B. C.....	24 E st. NW.	Sanderson, J. W.....	303 E st. NW.
Hannon, Daniel.....	517 F st. NW.	Soper, B. A.....	727 North Capitol st.
Harrison, J. T., & Son..	603 Pa. ave. SE.	Sweet, William T.....	220 4 $\frac{1}{2}$ st. NW.
Hilleary, T. W.....	1222 E st. NW.	Thorn, C. G.....	1223 F st. NW.
Hutchins, G. E.....	622 H st. NW.	Thomas, William A.....	9th st., near O NW.
Hannan, Ed. J.....	517 11th st. NW.	Tennant, Alexander.....	3414 N st. NW.
Hannan & Co.....	717 M st. NW.	Tilp, Ford.....	5th st. NW.
Harrover, J. R.....	1406 14th st. NW.	Umhau, C. F.....	1714 7th st. NW.
Hill, R. A., & Son.....	1326 Q st. NW.	Venable, F. W.....	916 4th st. SE.
Humphrey, Thomas.....	1742 14th st. NW.	Work, W. J.....	725 9th st. NE.
Hurley, J. W.....	908 E st. NW.	Whelan, William.....	1213 32d st. NW.
Hutchinson, W. T.....	510 7th st. SE.	Ward, W. N.....	924 4th st. NE.
Haislip, John W.....	908 9th st. NW.	Williamson, D. S.....	605 N. Y. ave.
Herbert, J. A.....	204 East Capitol st.	Ward & Cunningham....	414 11th st. NW.
Hurney, Thomas.....	1809 14th st. NW.	Wall, William.....	916 26th st. NW.

DIAGRAM illustrating the epidemic of Catarrhal Influenza during the years 1890-1891-1892 consolidated, with the sequelæ thereto.

' LA GRIPPE.'  
1890-91-92.

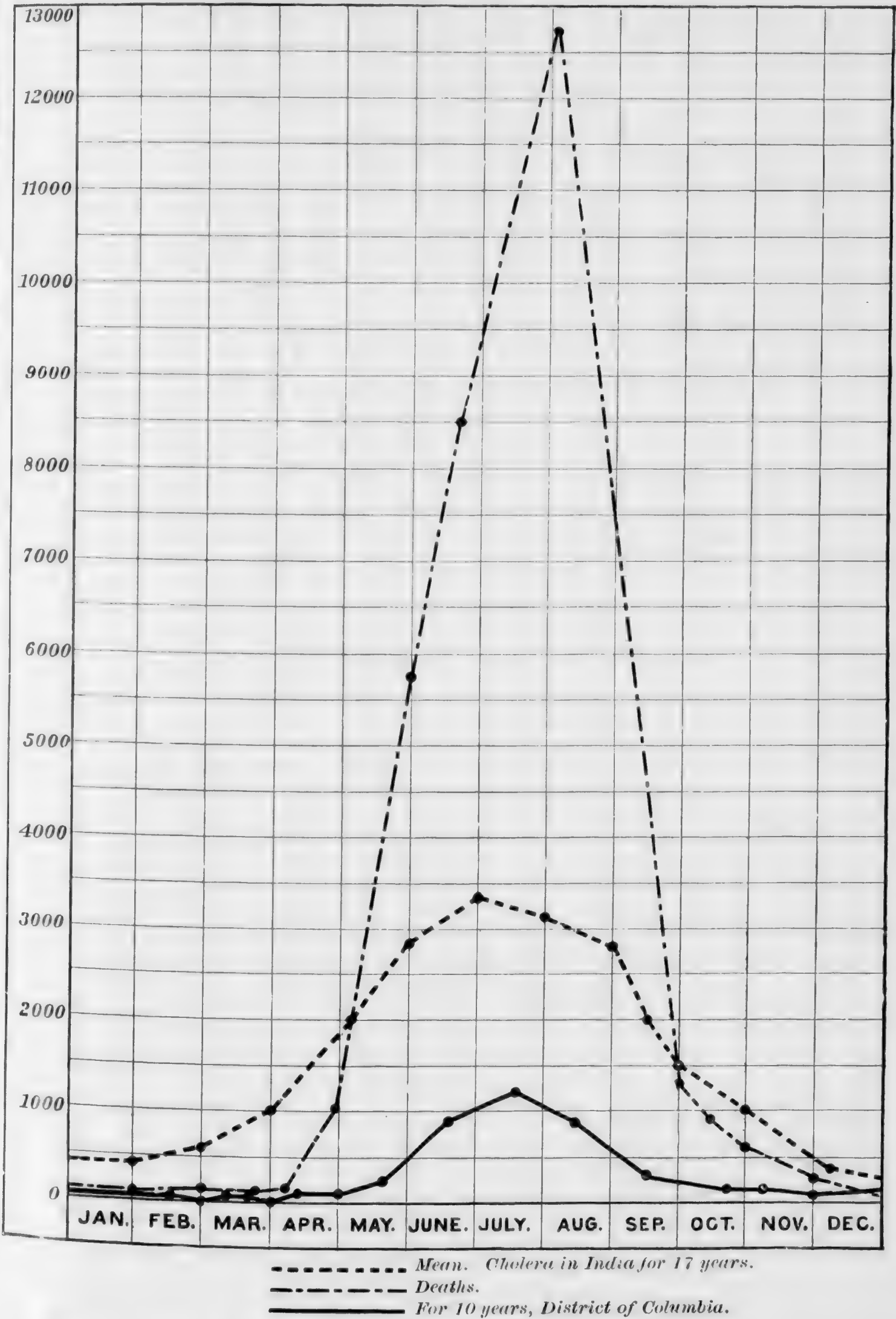


1890,	- - -	109.
1891,	- - -	162.
1892,	- - -	113.
TOTAL,	- - -	384.

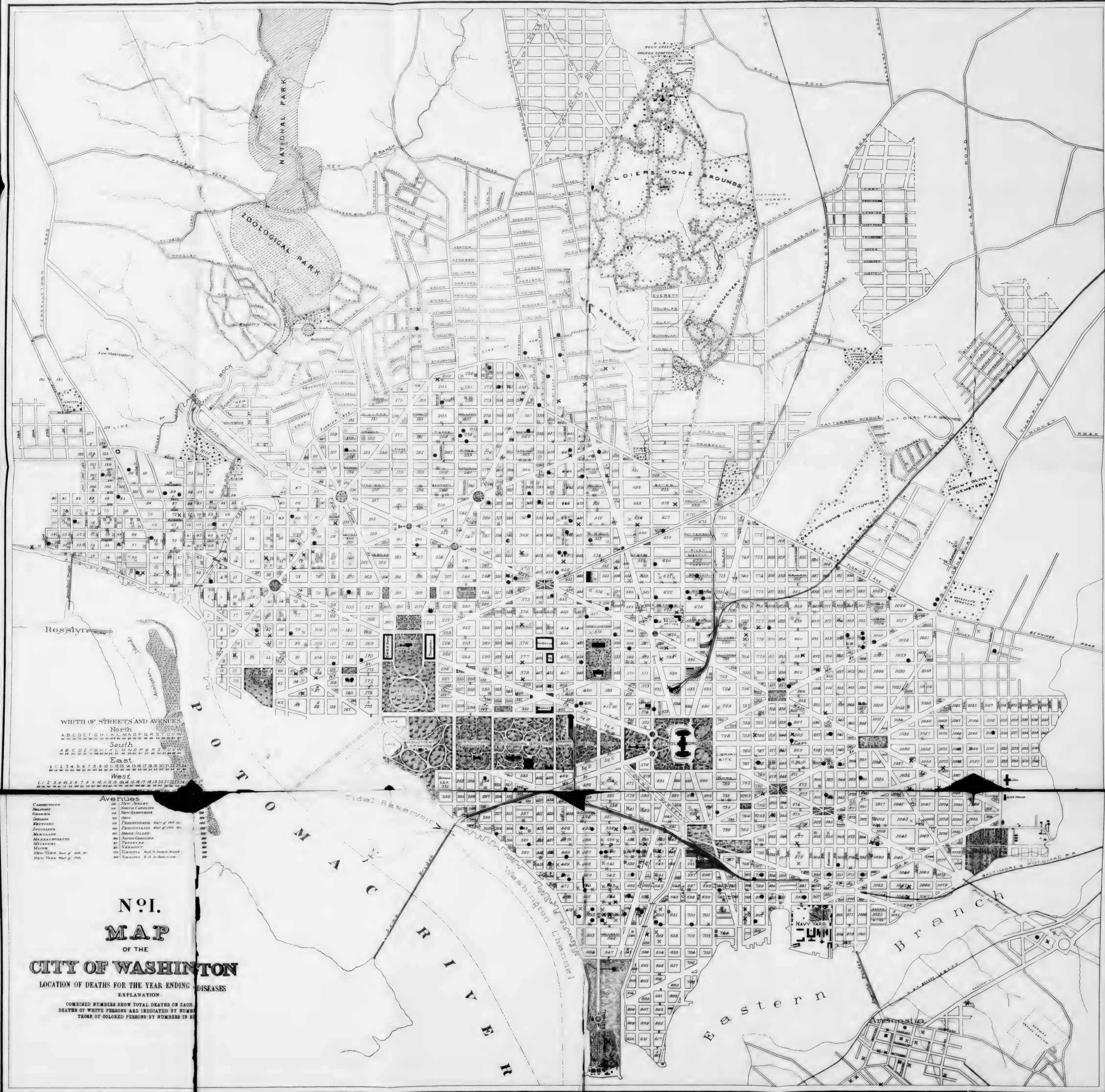




DIAGRAM showing the monthly mortality from cholera in the Bombay Presidency, India, for 1883, and the mean for the previous 17 years, as shown by the Report of Dr. E. O. Shakespeare to the Department of State, compared with the monthly mortality from diarrhæal diseases in the District of Columbia for ten years succeeding the year 1882.



Report Com'rs D. C., 1892.

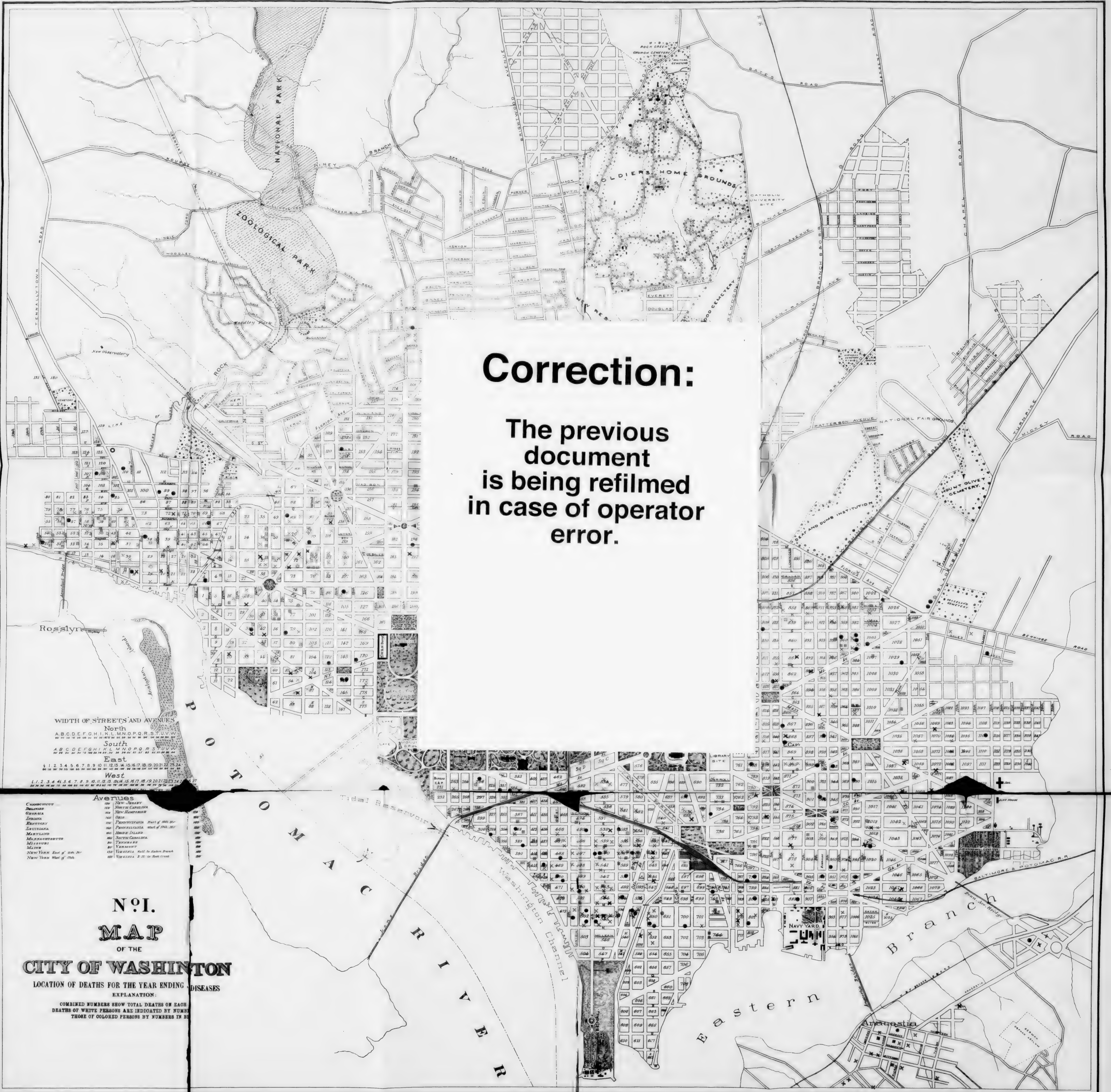


WIDTH OF STREETS AND AVENUES  
North  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
South  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
East  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
West  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

**No. 1.**  
**MAP**  
OF THE  
**CITY OF WASHINGTON**  
LOCATION OF DEATHS FOR THE YEAR ENDING 1914  
EXPLANATION:

COMBINED NUMBERS SHOW TOTAL DEATHS ON EACH  
DEATHS OF WHITE PERSONS ARE INDICATED BY NUMBERS  
THOSE OF COLORED PERSONS BY NUMBERS IN PARENTHESES





## Correction:

The previous document is being refilmed in case of operator error.

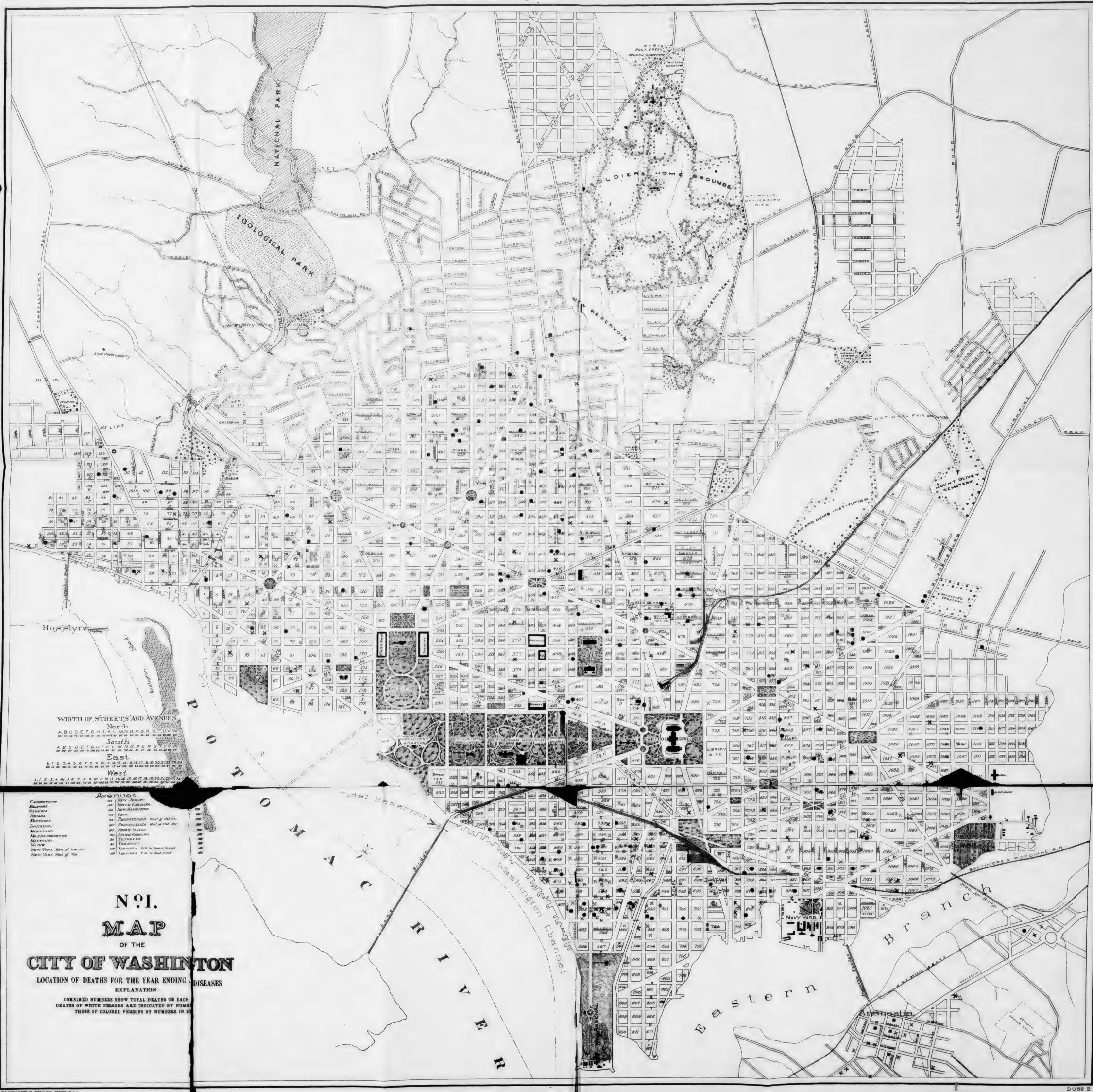
WIDTH OF STREETS AND AVENUES

North  
ABCDEFGHIJKLMNPOQRSTUVWXYZ  
South  
ABCDEFGHIJKLMNPOQRSTUVWXYZ  
East  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
West  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Avenues

100 New Jersey  
100 North Carolina  
100 New Hampshire  
100 Ohio  
100 Pennsylvania West of 10th St.  
100 Pennsylvania East of 10th St.  
100 Rhode Island  
100 South Carolina  
100 Tennessee  
100 Virginia West of Eastern Branch  
100 Virginia East of Eastern Branch

N.1.  
MAP  
OF THE  
CITY OF WASHINGTON  
LOCATION OF DEATHS FOR THE YEAR ENDING 1914  
EXPLANATION:  
COMBINED NUMBERS SHOW TOTAL DEATHS ON EACH  
DEATHS OF WHITE PERSONS ARE INDICATED BY NUMBERS  
THOSE OF COLORED PERSONS BY NUMBERS IN



WIDTH OF STREETS AND AVENUES

North

AB C D E F G H I J K L M N O P Q R S T U V W

South

AB C D E F G H I J K L M N O P Q R S T U V W

East

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

West

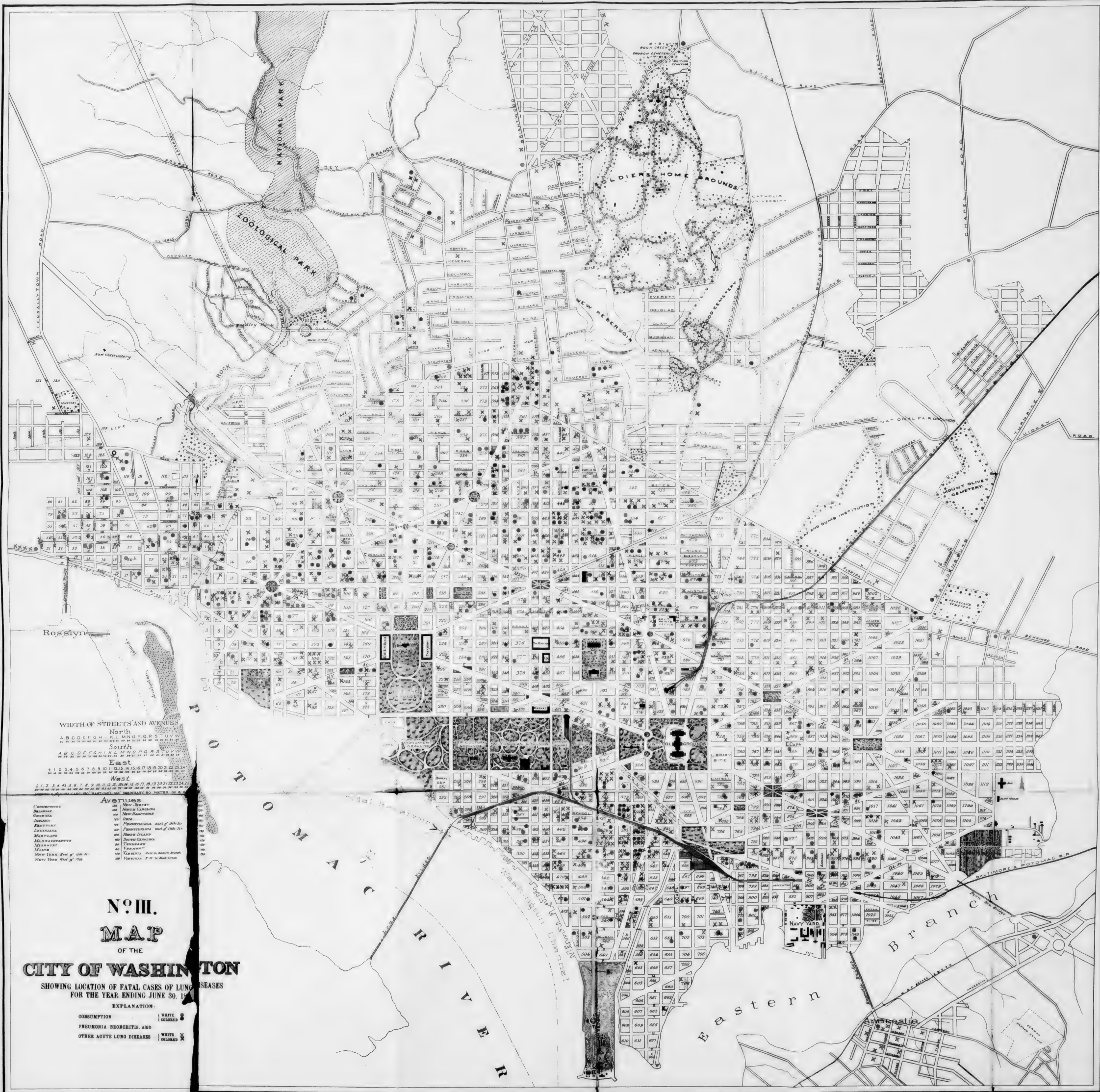
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

- Avenues
- 1st New Jersey
  - 2nd New Jersey
  - 3rd New Jersey
  - 4th New Jersey
  - 5th New Jersey
  - 6th New Jersey
  - 7th New Jersey
  - 8th New Jersey
  - 9th New Jersey
  - 10th New Jersey
  - 11th New Jersey
  - 12th New Jersey
  - 13th New Jersey
  - 14th New Jersey
  - 15th New Jersey
  - 16th New Jersey
  - 17th New Jersey
  - 18th New Jersey
  - 19th New Jersey
  - 20th New Jersey
  - 21st New Jersey
  - 22nd New Jersey
  - 23rd New Jersey
  - 24th New Jersey
  - 25th New Jersey
  - 26th New Jersey
  - 27th New Jersey
  - 28th New Jersey
  - 29th New Jersey
  - 30th New Jersey
  - 31st New Jersey
  - 32nd New Jersey
  - 33rd New Jersey
  - 34th New Jersey
  - 35th New Jersey
  - 36th New Jersey
  - 37th New Jersey
  - 38th New Jersey
  - 39th New Jersey
  - 40th New Jersey
  - 41st New Jersey
  - 42nd New Jersey
  - 43rd New Jersey
  - 44th New Jersey
  - 45th New Jersey
  - 46th New Jersey
  - 47th New Jersey
  - 48th New Jersey
  - 49th New Jersey
  - 50th New Jersey
  - 51st New Jersey
  - 52nd New Jersey
  - 53rd New Jersey
  - 54th New Jersey
  - 55th New Jersey
  - 56th New Jersey
  - 57th New Jersey
  - 58th New Jersey
  - 59th New Jersey
  - 60th New Jersey
  - 61st New Jersey
  - 62nd New Jersey
  - 63rd New Jersey
  - 64th New Jersey
  - 65th New Jersey
  - 66th New Jersey
  - 67th New Jersey
  - 68th New Jersey
  - 69th New Jersey
  - 70th New Jersey
  - 71st New Jersey
  - 72nd New Jersey
  - 73rd New Jersey
  - 74th New Jersey
  - 75th New Jersey
  - 76th New Jersey
  - 77th New Jersey
  - 78th New Jersey
  - 79th New Jersey
  - 80th New Jersey
  - 81st New Jersey
  - 82nd New Jersey
  - 83rd New Jersey
  - 84th New Jersey
  - 85th New Jersey
  - 86th New Jersey
  - 87th New Jersey
  - 88th New Jersey
  - 89th New Jersey
  - 90th New Jersey
  - 91st New Jersey
  - 92nd New Jersey
  - 93rd New Jersey
  - 94th New Jersey
  - 95th New Jersey
  - 96th New Jersey
  - 97th New Jersey
  - 98th New Jersey
  - 99th New Jersey
  - 100th New Jersey

# N.O.I. MAP OF THE CITY OF WASHINGTON

LOCATION OF DEATHS FOR THE YEAR ENDING 1914  
EXPLANATION:  
COMBINED NUMBERS SHOW TOTAL DEATHS ON EACH  
DEATHS OF WHITE PERSONS ARE INDICATED BY NUMBERS  
THOSE OF COLORED PERSONS BY NUMBERS IN P





WIDTH OF STREETS AND AVENUES

North

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

South

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

East

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

West

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Avenues

- 1st New Jersey
- 2nd New Jersey
- 3rd New Jersey
- 4th New Jersey
- 5th New Jersey
- 6th New Jersey
- 7th New Jersey
- 8th New Jersey
- 9th New Jersey
- 10th New Jersey
- 11th New Jersey
- 12th New Jersey
- 13th New Jersey
- 14th New Jersey
- 15th New Jersey
- 16th New Jersey
- 17th New Jersey
- 18th New Jersey
- 19th New Jersey
- 20th New Jersey
- 21st New Jersey
- 22nd New Jersey
- 23rd New Jersey
- 24th New Jersey
- 25th New Jersey
- 26th New Jersey
- 27th New Jersey
- 28th New Jersey
- 29th New Jersey
- 30th New Jersey
- 31st New Jersey
- 32nd New Jersey
- 33rd New Jersey
- 34th New Jersey
- 35th New Jersey
- 36th New Jersey
- 37th New Jersey
- 38th New Jersey
- 39th New Jersey
- 40th New Jersey
- 41st New Jersey
- 42nd New Jersey
- 43rd New Jersey
- 44th New Jersey
- 45th New Jersey
- 46th New Jersey
- 47th New Jersey
- 48th New Jersey
- 49th New Jersey
- 50th New Jersey
- 51st New Jersey
- 52nd New Jersey
- 53rd New Jersey
- 54th New Jersey
- 55th New Jersey
- 56th New Jersey
- 57th New Jersey
- 58th New Jersey
- 59th New Jersey
- 60th New Jersey
- 61st New Jersey
- 62nd New Jersey
- 63rd New Jersey
- 64th New Jersey
- 65th New Jersey
- 66th New Jersey
- 67th New Jersey
- 68th New Jersey
- 69th New Jersey
- 70th New Jersey
- 71st New Jersey
- 72nd New Jersey
- 73rd New Jersey
- 74th New Jersey
- 75th New Jersey
- 76th New Jersey
- 77th New Jersey
- 78th New Jersey
- 79th New Jersey
- 80th New Jersey
- 81st New Jersey
- 82nd New Jersey
- 83rd New Jersey
- 84th New Jersey
- 85th New Jersey
- 86th New Jersey
- 87th New Jersey
- 88th New Jersey
- 89th New Jersey
- 90th New Jersey
- 91st New Jersey
- 92nd New Jersey
- 93rd New Jersey
- 94th New Jersey
- 95th New Jersey
- 96th New Jersey
- 97th New Jersey
- 98th New Jersey
- 99th New Jersey
- 100th New Jersey

N<sup>o</sup>. III.  
MAP  
OF THE  
CITY OF WASHINGTON  
SHOWING LOCATION OF FATAL CASES OF LUNG DISEASES  
FOR THE YEAR ENDING JUNE 30, 1918

- EXPLANATION:
- CONSUMPTION WHITE
  - PNEUMONIA, BRONCHITIS, AND OTHER ACUTE LUNG DISEASES COLORED



## Avenues

CONNECTICUT ...  
 DELAWARE  
 GEORGIA  
 INDIANA  
 KENTUCKY  
 LOUISIANA  
 MARYLAND  
 MASSACHUSETTS  
 MISSOURI  
 MAINE  
 NEW YORK East of 15th St  
 NEW YORK West of 17th

130' NEW JERSEY ...  
 150' NORTH CAROLINA  
 160' NEW HAMPSHIRE  
 160' OHIO  
 120' PENNSYLVANIA East of 19th St.  
 160' PENNSYLVANIA West of 17th St  
 100' RHODE ISLAND.  
 100' SOUTH CAROLINA  
 80' TENNESSEE  
 80' VERMONT  
 130' VIRGINIA Mall to Eastern Branch  
 100' VIRGINIA B St to Rock Creek

# Nº II.

# MAP

OF THE

# CITY OF WASHINGTON

SHOWING LOCATION OF FATAL CASES OF ZYMOTIC  
 FOR THE YEAR ENDING JUNE 30, 1892

### EXPLANATION:

- TYPHOID FEVER
- ✕ MALARIAL FEVER
- SCARLET FEVER
- DIPHTHERIA
- ✕ DIARRHOEAL DISEASES



Z.

---

REPORT  
OF THE  
BOARD OF TRUSTEES OF PUBLIC SCHOOLS  
OF THE  
DISTRICT OF COLUMBIA  
TO THE  
COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

---

1891-'92.

---





# BOARD OF TRUSTEES OF PUBLIC SCHOOLS, DISTRICT OF COLUMBIA.

## LOCAL COMMITTEES.

Divisions.	Names.	Terms expire.	Addresses.
First .....	J. J. Darlington, esq.....	Sept. 13, 1895	410 Fifth street NW.
Second.....	Leonard C. Wood .....	do .....	507 E street NW.
Third.....	James W. Whelpley, esq ....	Sept. 13, 1893	American Security and Trust Com- pany, 1405 G street NW.
Fourth .....	David H. Hazen, M. D .....	do .....	407 Sixth street SW.
Fifth .....	John T. Mitchell, esq .....	do .....	1339 F street NW.
Sixth .....	A. H. Witmer, M. D.....	do .....	St. Elizabeth Insane Asylum.
	F. J. Shadd, M. D.....	July 24, 1894	Freedmen's Hospital.
Seventh .....	Blanche K. Bruce .....	Sept. 13, 1895	City Hall.
Eighth .....	L. A. Cornish, esq.....	Sept. 13, 1893	Sixth Auditor's Office, Busch Building.

## OFFICERS OF THE BOARD.

*President.*—JOHN T. MITCHELL, 1339 F street NW.

*Secretary.*—J. G. FALCK, Franklin School.

*Superintendent of schools.*—W. B. POWELL, A. M., Franklin School.

*Superintendent of colored schools.*—G. F. T. COOK, A. M., Sumner School.

## MEETINGS OF THE BOARD OF TRUSTEES.

The stated meetings of the board of trustees are held on the second Tuesday of each month, and also on the last Tuesday of June.

## STANDING COMMITTEES OF THE BOARD.

On Rules: Messrs. MITCHELL, WOOD, BRUCE.

On Ways and Means, Supplies, and Accounts: Messrs. WHELPLEY, HAZEN, CORNISH.

On Buildings, Repairs, and Furniture: Messrs. WOOD, WITMER, CORNISH.

On Normal and High Schools and Scholarships: Messrs. DARLINGTON. MITCHELL, BRUCE, WHELPLEY.

On Teachers and Janitors: Messrs. WITMER, WHELPLEY, SHADD.

On Text-books, Studies, and Examinations and Promotions of Pupils: Messrs. HAZEN, MITCHELL, BRUCE.

On Penmanship, Music, and Discipline: Messrs. SHADD, WHELPLEY, HAZEN.

On Industrial Education, Drawing, and Night Schools: Messrs. CORNISH, DARLINGTON, WOOD.

On Library and Report: Messrs. WITMER, DARLINGTON, SHADD.

# BRIEF SCHOOL DIRECTORY.

## FIRST SIX DIVISIONS.

### SUPERINTENDENT.

W. B. POWELL. Franklin school.

### SUPERVISING PRINCIPALS.

First division.....	N. D. Cram .....	Dennison school.
Second division (A) .....	N. P. Gage.....	Seaton school.
Second division (B).....	C. S. Clark.....	Gales school.
Third division .....	A. T. Stuart .....	Wallach school.
Fourth division.....	Isaac Fairbrother.....	Jefferson school.
Fifth division.....	B. T. Janney .....	Curtis school.
Sixth division (A).....	J. R. Keene.....	Monroe school.
Sixth division (B).....	J. T. Freeman.....	Anacostia, D. C.
Primary grades .....	L. A. Denney (Miss) .....	Franklin school.

### PRINCIPALS OF HIGH SCHOOLS.

Dr. F. R. Lane.....	Central high school.
C. M. Lacey Sites.....	Eastern high school.
E. C. Westcott (Miss).....	Western high school.
C. A. Davis .....	Business high school.

Principal normal school.....	I. G. Myers (Mrs.) .....	Franklin school.
Directress of music .....	A. E. Scammell (Miss) .....	1108 Maryland avenue, SW.
Directress of drawing.....	S. E. W. Fuller (Mrs.).....	2611 Messmore avenue.
Director of manual training.....	J. A. Chamberlain.....	626 O street, NW.
Directress of cooking.....	E. S. Jacobs (Miss) .....	1009 S street, NW.
Directress of sewing.....	M. W. Cate (Mrs.).....	217 I street, NW.
Directress of physical cul- ture.	Rebecca Stoneroad (Miss) ..	1125 Thirteenth street, NW.

## SEVENTH AND EIGHTH DIVISIONS.

### SUPERINTENDENT.

G. F. T. COOK, Sumner school.

### SUPERVISING PRINCIPALS.

Seventh division.....	H. P. Montgomery.....	Sumner school.
Eighth division (A).....	W. S. Montgomery .....	John F. Cook school.
Eighth division (B).....	J. H. N. Waring .....	Lincoln school.
Principal high school .....	F. L. Cardoso .....	M street between New Jer- sey avenue and First street NW.
Principal normal school .....	L. E. Moten (Miss) .....	Magruder school.
Director of music .....	H. F. Grant .....	2040 Seventeenth street NW.
Director of drawing.....	T. W. Hunster.....	Fifteenth and Kenesaw ave. nue NW.
Director of manual training.....	J. H. Hill .....	2521 Sixth street NW.
Directress of cooking .....	M. B. Cook (Mrs.) .....	215 Prince street, Alexan- dria, Va.
Directress of sewing .....	C. E. Syphax (Mrs.) .....	1447 Pierce Place NW.
Directress of physical cul- ture.	M. P. Evans (Mrs.).....	934 S street NW.



## REPORT OF THE BOARD OF TRUSTEES OF THE PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA.

---

WASHINGTON, D. C., *November 1, 1892.*

GENTLEMEN: We have the honor to submit herewith the report of the board of trustees of the public schools for the year ending June 30, 1892, accompanied by full, interesting, and valuable reports from the two superintendents, the principals of the high schools, the supervising principals, and the heads of special departments of instruction.

### GRATIFYING PROGRESS OF THE SCHOOLS.

In doing this we can not refrain from inviting your attention, and through you that of Congress, to the admirable exhibit of growth, progress and efficiency which has characterized the public schools of this District during the past seven years of their history, apparent from the several reports, and presented with especial care and fullness in the clear and exhaustive report of Superintendent Powell. Whatever may be said or thought of the success, or want of success, on the part of our high schools in fitting the favored few of our pupils who annually go from them to the institutions of higher learning, for meeting the special requirements of some of them, no one who contemplates the record of facts accomplished and results attained within that period, as shown by these reports, can hesitate to believe that in the great object for which they were instituted, namely, that of reaching the greatest number of the youth of our District and promoting their best interests and advancement in life, our public schools have achieved a phenomenal degree of success, efficiency, and usefulness.

### NEEDED INCREASE IN HIGH-SCHOOL SALARIES.

At the same time, it is obvious that a stage has now been reached at which it should be possible to make the standard of high-school education second to that of no other school system in our country, and to do so without narrowing or abridging their beneficial results to the great body of pupils. The added fourth year of the course, if supplemented by such liberality of appropriation as the needs of the schools,

the financial status of the District, and the absolute requirements of the object aimed at unite in rendering appropriate and necessary, will undoubtedly accomplish that result. It is absolutely indispensable to this end, however, that some increase be allowed in the number of higher salaries accorded to the high schools. It is idle to hope that 2,200 high-school pupils can be provided with a capable and efficient corps of instructors, qualified by scholarly acquirement and skilled experience, to educate them in Latin, Greek, quantitative and qualitative chemistry, physics, and advanced mathematics, under appropriations which admit of but four teachers at salaries of \$1,500 each, of none at a salary in excess of that sum, and of only 12 teachers in the entire corps receiving salaries in excess of \$1,000. By contrasting these meager allowances to positions which should be filled by men of marked superiority in culture, learning, and intellectual force with the salaries accorded copyists and merely clerical officers in the various departments here in Washington, the inadequacy of the former must be apparent to the most casual observer.

It is earnestly recommended that the number of teachers in the larger-salaried classes may be materially increased in the appropriation for the ensuing year, in order that the wishes of those who favor the maintenance of a still higher standard in the high schools, among whom is to be included every member of this board, may be fully realized.

#### PROPOSED ABOLITION OF AVERAGE-SALARY CLAUSE.

In this connection, we desire to call to your attention, and through you to that of Congress, a somewhat anomalous and, we think, unnecessary provision in the later appropriations for the support of the schools. Up to a comparatively recent period, a gross sum was appropriated for the pay of a specified number of teachers, with a proviso that the average salary of teachers should not exceed a specified sum. For the past two years, the teachers have been grouped in classes, the bill providing for a given number of teachers at a specified salary, for another given number of teachers at another specified salary, and so on throughout the list, the exact number of teachers to be employed and the exact salary to be paid to each being thus fixed by the terms of the appropriation; but, in analogy to the former method of appropriation, a clause has continued to be inserted that the average salary of the teachers shall not exceed a given sum—\$685, for example, that being the average salary prescribed by the appropriation for the now current year.

It is recommended that this clause prescribing an average salary be hereafter omitted, as no longer answering any useful purpose, since the teachers are now provided for in classes, and its only effect being to embarrass the board and the auditing officers of the Government whenever, by reason of death or other unanticipated contingencies, temporary vacancies happen to occur in the lower grades.



## FREE TEXT-BOOKS.

Especial attention is invited to the interesting results shown by Superintendent Powell's report to have followed the appropriation for free school books. The largely increased attendance in the lower grades resulting from it, and the broadening of the course of instruction which it renders feasible are, of themselves, ample vindication of the wisdom of that appropriation.

In this connection, however, we desire to invite attention to an unfortunate (and we think an unintended) result of this appropriation, as construed by the accounting officers of the Government. Up to the commencement of the now current school year it has been the custom of the school authorities to provide pupils in all the schools, who were meritorious and whose circumstances required such action, with free text-books, paid for from the contingent fund. This year it is held by the accounting officers that the legislative provision for free text-books to all pupils throughout the first six grades is a legislative prohibition of free text-books to any pupils in the seventh and eighth grades or in the high schools. To this extent, therefore, the beneficent provision in question (furnishing free text-books to all pupils within the grades specified regardless of their circumstances in life) is having the effect of abridging the educational opportunities of a number of meritorious and promising pupils. It is conceived that this can not have been the intention of Congress, and we earnestly recommend that the appropriation bill for the ensuing year may be so framed as to exclude the necessity or the opportunity for such a construction.

## CUSTODIAN OF FREE TEXT-BOOKS AND SUPPLIES.

We call to your attention the imperative necessity of providing some officer who shall be charged with the labor and responsibility of keeping, distributing, and having charge of the very considerable amount of property to which the annual free text-books appropriation is giving rise. The appropriation for free text-books for the past school year was \$25,000, the appropriation for the current year is \$35,000, and each succeeding year will doubtless increase the total of the fund, and the bulk, volume, and value of the books and supplies purchased therewith. The board last year recommended the appointment of a custodian for this property, which recommendation was stricken out by Congress, but an appropriation of \$35,000 was allowed for the purchase of free text books and the custody thereof. Your honorable board appointed a custodian, at a salary of \$50 per month, but the accounting officers of the Government refused to recognize such an officer on the ground that the action of Congress in refusing to create such an office was equivalent to providing that there should be no such officer. We can not think that Congress appropriated for the custody of this property with any other intent than that there should be a cus-



todian; but, however this may be, we call the matter to your attention with the recommendation that in the appropriation for the ensuing year such explicit and appropriate provision may be asked for the safe-keeping of this large and valuable property as the importance of the matter demands.

#### ACCOMMODATIONS.

It is apparent from the reports of the superintendents that, for perhaps the first time in their history, the public schools of the District of Columbia are now provided with accommodations substantially equal to their needs, except that in the seventh and eighth divisions, comprising the colored children in the cities of Washington and Georgetown, some additional accommodations for the lower grades are still needed, as set forth in Superintendent Cook's report. When these needs are fully met, as it is hoped they will be in the appropriation bill for the ensuing year, it will only be necessary to have the appropriations for new buildings keep pace with the growth in attendance. That growth, the accompanying statistics show, is at the rate of about 1,400 per annum, of which increase about 200 is found in the high schools, where adequate accommodations for some time to come already exist, leaving about 1,200 new pupils to be provided for in the graded schools. If, therefore, the new school buildings included in the estimates submitted to you for the next ensuing year shall be granted, the accommodations will be made fully equal to the needs of the schools as established by the enrollment for the present year, the colored schools included, and four 8-roomed buildings annually, at the present rate of growth, will probably be all that we shall have to ask of Congress in the succeeding years.

CLERK TO THE SUPERINTENDENT AND SECRETARY OF THE BOARD.

The board, in its estimates, has repeatedly recommended that the salary of this official be increased from \$1,200 to \$1,500. His position is one of much importance, requiring in it an officer of education, executive ability, and untiring effort. We beg leave to renew that recommendation in this more formal way as one, in our opinion, in every way deserving of your most favorable consideration.

JOHN T. MITCHELL,  
*President Board of Trustees.*

The COMMISSIONERS OF THE DISTRICT OF COLUMBIA.

## REPORT OF SUPERINTENDENT POWELL.

*The Board of School Trustees of the District of Columbia:*

GENTLEMEN: I have the honor herewith to present the annual report of the public schools under your charge for the school year 1891-'92.

The part of the report setting forth the facts, in summary, for the entire school is made by uniting the facts given by Superintendent Cook, of the seventh and eight divisions, with those relating to the schools of the first six divisions, under my supervision.

This summary is made for the convenience of officials who have not time to make the consolidation necessary for a view of the entire system.

### ENROLLMENT.

The number of pupils enrolled was 39,678—25,188 white and 14,490 colored. This shows an increase of 1,292, or 3.4 per cent, over the enrollment of the previous year.

Of the number enrolled 18,890 were males and 20,788 were females.

The average enrollment was 32,206, or 2.9 per cent, above that of the year previous.

The average number of pupils in daily attendance was 29,762, being 752, or 2.6 per cent, in excess of that of the year previous.

### TEACHERS.

There were employed 845 teachers—562 white and 283 colored. Of these 111 were males and 734 females.

The teachers employed were distributed as follows:

	White.	Colored.	Total.
Supervisors.....	9	3	12
Normal schools.....	5	4	9
High schools.....	61	17	78
Grammar schools.....	205	64	269
Primary schools.....	233	173	406
Drawing.....	7	3	10
Music.....	4	2	6
Health exercises.....	4	2	6
Manual training.....	15	5	20
Cooking.....	10	4	14
Sewing.....	9	6	15
Total.....	562	283	845

## The day schools cost:

For teachers and supervisors .....	\$586,385.95
For rent .....	9,602.00
For fuel .....	30,058.58
For janitors .....	47,350.96
For incidental expenses, including insurance, general supplies, printing, etc .....	26,148.72
For free text books and supplies .....	24,779.00
For industrial instruction, including manual training, cooking, and sewing .....	9,798.72
For buildings and repairs .....	24,216.07
Total .....	758,340.00

The relative numbers enrolled in the different grades of our schools are shown by the following:

*Per cent of whole enrollment.*

Schools.	White.	Colored.
In normal schools .....	.18	.18
In high schools .....	7.09	2.81
In grammar schools .....	39.46	23.39
In primary schools .....	53.27	73.62

There were enrolled in the night schools 2,907—1,344 white and 1,563 colored persons. These were taught by 55 teachers, of whom 26 were white and 29 colored.

## The night schools cost:

For teachers .....	\$5,987.00
For incidental expenses .....	316.07
Total .....	6,303.07

The day schools were in session 185 days; the night schools were open 58 nights in the first six divisions and 48 nights in the seventh and eighth divisions.

The total number of persons benefited by the schools was 42,585.



TABLE I.—Showing attendance and cost of white and colored schools.

	White.	Colored.	Total.
<b>Whole enrollment:</b>			
Normal schools .....	46	27	73
High schools .....	1,785	407	2,192
Grammar and primary schools .....	23,357	14,056	37,413
Total .....	25,188	14,490	39,678
Increase for the year .....	949	841	1,292
Per cent of increase .....	3.9	2.4	3.3
<b>Average enrollment:</b>			
Normal schools .....	40	27	73
High schools .....	1,596	304	1,960
Grammar and primary schools .....	19,017	11,156	30,173
Total .....	20,659	11,547	32,206
Increase for the year .....	545	300	905
Per cent of increase .....	2.7	3.2	2.9
<b>Average daily attendance:</b>			
Normal schools .....	44	25	69
High schools .....	1,483	349	1,832
Grammar and primary schools .....	17,402	10,459	27,861
Total .....	18,929	10,833	29,762
Increase for the year .....	425	327	752
Per cent of increase .....	2.3	3.1	2.6
<b>Whole enrollment:</b>			
Boys .....	12,636	6,254	18,890
Girls .....	12,552	8,236	20,788
Total .....	25,188	14,490	39,678
<b>Whole enrollment in night schools</b> .....	1,344	1,563	2,907
Grand total .....	26,532	16,053	42,585
<b>Number of teachers:</b>			
Male .....	70	41	111
Female .....	492	242	734
Total .....	562	283	845
Night schools .....	26	29	55
Grand total .....	588	312	900
<b>School buildings:</b>			
Owned .....	60	35	95
Rented .....	6	3	9
Free .....		1	1
Total .....	66	39	105
<b>Schoolrooms:*</b>			
Owned .....	428	238	666
Rented .....	26	21	47
Free .....		2	2
Total .....	454	261	715
Cost of tuition per pupil, including supervision (based on average enrollment) .....			18.20
Cost per pupil for all expenses except repairs and permanent improvements (based on average enrollment) .....			22.79

\*Not including high schools.

## 826 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA

TABLE II.—Whole enrollment of pupils in the several kinds and grades of schools for the school year ending June 30, 1892.

	White.	Colored.	Total.
Normal schools .....	46	27	73
High schools .....	1,785	407	2,192
Total .....	1,831	434	2,265
Grammar schools, city:			
Eighth grade .....	1,889	414	2,303
Seventh grade .....	2,048	683	2,731
Sixth grade .....	2,393	750	3,143
Fifth grade .....	2,919	1,080	3,999
Total .....	9,249	2,927	12,176
Primary schools, city:			
Fourth grade .....	2,801	1,510	4,311
Third grade .....	2,787	1,987	4,774
Second grade .....	2,803	2,162	4,965
First grade .....	3,639	3,260	6,899
Total .....	12,030	8,919	20,949
County schools .....	2,078	2,210	4,288
Grand total .....	25,188	14,490	39,678

TABLE III.—Whole enrollment of pupils, boys and girls, white and colored, in the District of Columbia, by grades, for the school year ending June 30, 1892.

Grade.	Whole enrollment.			
	Boys.	Girls.	Total.	Per cent.
Normal schools .....	1	72	73	0.18
High schools .....	1,086	1,106	2,192	5.53
Eighth grade .....	1,009	1,428	2,437	6.14
Seventh grade .....	1,266	1,662	2,928	7.38
Sixth grade .....	1,642	1,883	3,525	8.89
Fifth grade .....	2,166	2,271	4,437	11.18
Fourth grade .....	2,388	2,489	4,877	12.29
Third grade .....	2,602	2,788	5,390	13.58
Second grade .....	2,846	2,968	5,814	14.65
First grade .....	3,884	4,121	8,005	20.18
Total .....	18,890	20,788	39,678	100.00
SUMMARY.				
Normal and high schools .....	1,087	1,178	2,265	5.71
Grammar schools .....	6,083	7,244	13,327	33.59
Primary schools .....	11,720	12,366	24,086	60.70
Total .....	18,890	20,788	39,678	100.00

## SCHOOLS.

The number of schools below the high school was as follows:

	White.	Colored.	Total.
Grammar schools, city:			
Eighth grade .....	39	8	47
Seventh grade .....	42	11	53
Sixth grade .....	50	14	64
Fifth grade .....	56	20	76
Total .....	187	53	240
Primary schools, city:			
Fourth grade .....	52	26	78
Third grade .....	53	30	89
Second grade .....	56	40	96
First grade .....	58	56	114
Total .....	219	158	377
County schools .....	41	42	83
Grand total .....	447	253	700
Number of whole-day schools .....	304	165	592
Number of half-day schools .....	53	88	108
Total .....	447	253	700

The average number of pupils to a school (based on the whole enrollment) was as follows:

	White.	Colored.	Total.
High schools (to a teacher, excluding principal) .....	29.7	25.4	28.6
Grammar schools, city:			
Eighth grade .....	48.4	51.7	49.0
Seventh grade .....	48.8	62.0	51.5
Sixth grade .....	47.9	53.5	49.1
Fifth grade .....	52.1	54.0	52.6
Primary schools, city:			
Fourth grade .....	53.9	58.0	55.2
Third grade .....	52.5	55.1	54.2
Second grade .....	50.0	54.0	51.7
First grade .....	62.7	58.2	60.5
County schools .....	50.7	52.6	51.6



Eight hundred and forty-five teachers were employed, as follows:

	White.	Colored.	Total.
Supervising principals.....	9	3	12
Normal schools.....	5	4	9
High schools.....	61	17	78
Total.....	75	24	99
Grammar schools, city:			
Eighth grade.....	39	8	47
Seventh grade.....	42	11	53
Sixth grade.....	50	14	64
Fifth grade.....	56	20	76
Total.....	187	53	240
Primary schools, city:			
Fourth grade.....	50	26	76
Third grade.....	51	35	86
Second grade.....	54	38	92
First grade.....	56	46	102
Total.....	211	145	356
County schools.....	40	39	79
Teachers of music.....	4	2	6
Teachers of drawing.....	7	3	10
Teachers of manual training.....	15	5	20
Teachers of cookery.....	10	4	14
Teachers of sewing.....	9	6	15
Teachers of physical culture.....	4	2	6
Grand total.....	562	283	845

The cost of the schools for supervision and teaching was as follows:

	White.	Colored.	Total.
Supervision:			
1 superintendent.....	\$3,300.00	\$2,250.00	\$5,550.00
8 supervising principals, each \$2,000.....	16,000.00		16,000.00
3 supervising principals, each \$2,000.....		6,000.00	6,000.00
1 supervising principal.....	1,500.00		1,500.00
1 clerk.....	1,200.00	800.00	2,000.00
1 messenger.....	300.00	200.00	500.00
Total.....	22,300.00	9,250.00	31,550.00
Cost per pupil, estimated on average enrollment.....	1.00	.93	.97
Tuition:			
Normal schools—			
Principals.....	1,500.00	1,500.00	3,000.00
2 teachers.....	2,000.00		2,000.00
2 teachers.....	1,600.00		1,600.00
1 teacher.....		800.00	800.00
1 teacher.....		750.00	750.00
1 teacher.....		700.00	700.00
Total.....	\$5,100.00	\$3,750.00	\$8,850.00
Cost per pupil, estimated on average enrollment.....	20.54	48.00	

\* Includes the cost of teaching eight practice schools, \$4,132.72.

† Includes the cost of teaching five practice schools, \$2,250.00.

	White.	Colored.	Total.
<b>Tuition—Continued.</b>			
<b>High schools—</b>			
Principals .....	\$2,500.00	\$1,800.00	\$4,300.00
60 teachers .....	50,445.00		50,445.00
16 teachers .....		13,020.00	13,020.00
Total .....	52,945.00	14,820.00	67,765.00
Cost per pupil, estimated on average enrollment .....	33.31	40.71	34.55
<b>Grammar schools, city—</b>			
39 eighth, 42 seventh, 50 sixth, 56 fifth grade schools .....	153,260.00		153,260.00
8 eighth, 11 seventh, 14 sixth, 20 fifth grade schools .....		42,825.00	42,825.00
Total .....	153,260.00	42,825.00	196,085.00
Cost per pupil, estimated on average enrollment .....	19.70	18.13	19.34
<b>Primary schools, city—</b>			
52 fourth, 53 third, 56 second, 58 first grade schools .....	108,900.00		108,900.00
26 fourth, 36 third, 40 second, 56 first grade schools .....		74,863.38	74,863.38
Total .....	108,900.00	74,863.38	183,763.38
Cost per pupil, estimated on average enrollment .....	11.35	10.77	10.95
<b>Special teachers—</b>			
4 music teachers, 7 drawing teachers, 4 teachers of physical culture .....	11,300.00		11,300.00
2 music teachers, 3 drawing teachers, 2 teachers of physical culture .....		5,510.00	5,510.00
Total .....	11,300.00	5,510.00	16,810.00
Cost per pupil, estimated on average enrollment .....	.51	.55	.52
<b>Manual training—</b>			
Carpentry, 14; metal working, 1; cookery, 10; sewing, 9 .....	23,067.50		23,067.50
Carpentry, 4; metal working, 1; cookery, 4; sewing, 6 .....		10,450.00	10,450.00
Total .....	23,067.50	10,450.00	33,517.50
Cost per pupil, estimated on average enrollment .....	1.04	1.05	1.04
<b>County schools—</b>			
40 teachers .....	25,180.08		25,180.08
39 teachers .....		22,865.00	22,865.00
Total .....	25,180.08	22,865.00	48,045.08
Cost per pupil estimated on average enrollment .....	15.28	14.25	14.76

*Supervision.*

The cost of supervision was:

One superintendent (white) .....	\$3,300.00
One superintendent (colored) .....	2,250.00
Eight supervising principals (white, each \$2,000) .....	16,000.00
Three supervising principals (colored, each \$2,000) .....	6,000.00
One supervising principal (white) .....	1,500.00
One clerk .....	1,200.00
One clerk (colored) .....	800.00
One messenger .....	300.00
One messenger (colored) .....	200.00

Total cost of supervision .....	31,550.00
Average cost of supervision per pupil (estimated on average enrollment, 32,206) .....	.97

# 830 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## Summary:

Total cost of instruction, including supervision .....	\$586, 385. 96
Whole number of pupils enrolled .....	39, 678
Average number of pupils enrolled .....	32, 206
Average daily attendance .....	29, 762
Average cost of instruction, including supervision, estimated on—	
1. Whole enrollment .....	14. 77
2. Average enrollment .....	18. 20
3. Average daily attendance .....	19. 70

### *Washington Normal School of the first six divisions.*

Number of teachers trained .....	46
Average attendance .....	44
Number of teachers employed .....	5
Average salary .....	\$1, 020

### *Washington Normal School of the seventh and eighth divisions.*

[Colored.]

Number of teachers trained .....	27
Average attendance .....	25
Number of teachers employed .....	4
Average salary .....	\$937. 50

### *Contingent expenses.*

Total amount expended .....	\$26, 118. 22
Average amount per pupil (estimated on average enrollment) .....	. 81

### *Fuel.*

Total amount expended .....	\$30, 058. 58
-----------------------------	---------------

### *Janitors.*

Total amount expended .....	\$47, 350. 96
-----------------------------	---------------

## SUMMARY.

Amount expended, grand total .....	\$734, 123. 93
Average cost per pupil (including high and normal schools) for all expenses except repairs and permanent improvements—	
1. On whole enrollment .....	18. 68
2. On average enrollment .....	22. 79
3. On average daily attendance .....	24. 66

### *High schools of the first six divisions.*

Number of pupils enrolled (girls, 803; boys, 982) .....	1, 785
Average enrollment .....	1, 596
Average attendance .....	1, 483
Per cent of attendance .....	94. 3
Average number of cases of tardiness per month .....	20. 1
Number of pupils dismissed .....	2
Number of teachers employed .....	61
Average salary paid .....	\$867. 95
Cost of tuition per pupil (estimated on average enrollment) .....	\$33. 31



## Washington High School of the seventh and eight divisions.

[Colored.]

Number of pupils enrolled (girls, 303; boys, 104).....	407
Average enrollment.....	364
Average attendance.....	349
Per cent of attendance.....	95.8
Average number of cases of tardiness per month.....	20.4
Number of pupils dismissed.....	0
Number of teachers employed.....	17
Average salary paid.....	\$871.76
Cost of tuition per pupil (estimated on average enrollment).....	\$40.71

## Grammar and primary schools.

	White.	Colored.	Total.
Number of pupils enrolled.....	23,357	14,056	37,413
Average enrollment.....	19,017	11,156	30,173
Average attendance.....	17,402	10,459	27,861
Per cent of attendance.....	91.7	93.7	92.5
Average number of cases of tardiness per month.....	1,985	542	2,527
Number of pupils dismissed.....	9	8	17
Number of cases of corporal punishment.....	51	147	198
Number of teachers employed.....	438	237	675
Average salary paid.....	\$656.02	\$539.05	\$633.91
Average number of pupils to a teacher (estimated on average enrollment).....	43.4	47.0	44.7
Cost of tuition per pupil (estimated on average enrollment).....	\$15.10	\$12.59	\$14.18

## Special teachers.

	White.*	Colored.†	Total.
Drawing.....	7	3	10
Music.....	4	2	6
Teachers of physical culture.....	4	2	6
Average salary paid:			
Drawing.....	\$778.57	\$720.00	\$761.00
Music.....	837.50	1,000.00	891.66
Teachers of physical culture.....	625.00	675.00	641.66
Average cost per pupil for special tuition (estimated on average enrollment).....	.51	.55	.52

\* First six divisions.

† Seventh and eighth divisions.

## 832 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

*List of schoolhouses owned, with their respective locations, and with the number of rooms in each.*

Divisions.	Names of buildings.	Location of buildings.	Number of rooms.
	Central High.....	O street, between Sixth and Seventh northwest .....	.....
	Eastern High.....	Seventh street, between Pennsylvania avenue and C street south-east.	.....
1	Franklin .....	Thirteenth and K streets northwest .....	15
1	Dennison .....	S street, between Thirteenth and Fourteenth northwest.....	12
1	Force.....	Massachusetts avenue, between Seventeenth and Eighteenth streets northwest	12
1	Berret .....	Fourteenth and Q streets northwest.....	9
1	Adams .....	R street, between Seventeenth and New Hampshire avenue northwest.	8
1	Harrison .....	Thirteenth street, between V and W northwest.....	8
1	Thomson .....	Twelfth street, between K and L northwest.....	6
1	Phelps.....	Vermont avenue, between T and U streets northwest.....	8
2a	Henry .....	P street, between Sixth and Seventh northwest.....	12
2a	Webster.....	Tenth and H streets northwest.....	12
2a	Seaton.....	I street, between Second and Third northwest.....	12
2a	Abbott .....	Sixth street and New York avenue northwest.....	9
2a	Morse .....	Fifth and R streets northwest.....	8
2a	Polk.....	Seventh and P streets northwest.....	8
2b	Gales .....	First and G streets northwest.....	12
2b	Blake.....	North Capitol street, between K and L northwest.....	8
2b	Twining.....	Third street, between N and O northwest.....	8
2b	Arthur .....	Arthur Place northwest.....	8
2b	Blair .....	I street, between Sixth and Seventh northeast.....	8
2b	Taylor.....	Seventh, between F and G streets northeast.....	8
2b	Madison .....	Tenth and G streets northeast.....	8
2b	Hamilton .....	County .....	4
3b	Wallach .....	Pennsylvania avenue, between Seventh and Eighth streets south-east.....	12
3	Maury .....	B, between Thirteenth and Fourteenth streets northeast.....	8
3	Peabody .....	Fifth and C streets northeast.....	12
3	Brent.....	Third and D streets southeast.....	8
3	Towers .....	Eighth and C streets southeast.....	8
3	Carberry.....	Fifth, between D and E streets northeast.....	8
3	McCormick.....	Third, between M and N streets southeast.....	4
3	.....	Seventh and G streets southeast.....	2
3	Lenox .....	Fifth street and Virginia avenue southeast.....	8
4	Jefferson.....	Sixth and D streets southwest.....	19
4	Amidon.....	Sixth and F streets southwest.....	8
4	Bradley.....	Thirteen-and-a-half, between C and D streets southwest.....	8
4	Potomac.....	Twelfth, between Maryland avenue and E street street southwest	4
4	Greenleaf.....	Four-and-a-half, between M and N streets southwest.....	4
4	Smallwood.....	I street, between Third and Four-and-a-half southwest.....	8
5	Curfis .....	O street, between Thirty-second and Thirty-third northwest.....	9
5	Addison .....	P street, between Thirty-second and Thirty-third northwest.....	8
5	Corcoran.....	Twenty-eighth street, between M street and Olive avenue northwest	8
5	Grant.....	G street, between Twenty-first and Twenty-second northwest....	12
5	Weightman.....	Twenty-third and M streets northwest.....	8
5	Jackson .....	U street, between Thirtieth and Thirty-first northwest.....	8
5	High street.....	Thirty-second and S streets northwest.....	1
5	Thaelkeld.....	Thirty-sixth street and Prospect avenue northwest .....	4

List of schoolhouses owned, with their respective locations, and with the number of rooms in each—Continued.

Divisions.	Names of buildings.	Location of buildings.	Number of rooms.
6a	Monroe	Steuben street, between Seventh and Eighth, county	8
6a	Mott and annex	Sixth street extended and Trumbull street	10
6a	Wilson	Central street, between Erie and Superior, Meridian Hill	8
6a	Brookland	Brookland, D. C.	4
6a	Mount Pleasant	County	4
6a	Tennallytown	do	4
6a	Grant Road	do	2
6a	Brightwood	do	4
6a	Soldiers' Home	do	2
6a	Conduit Road	do	1
6a	Chain Bridge Road	do	1
6a	Brightwood	do	2
6a	Fort Slocum	do	1
6a	Queen's Chapel Road	do	1
6b	Van Buren, and annex	Anacostia, D. C.	14
6b	Tyler	Eleventh, between G and I streets southeast	8
6b	Cranch	Twelfth and G streets southeast	6
6b	Hillsdale and Birney	Nichols avenue, Hillsdale, D. C.	10
6b	Benning	County	4
6b	Benning Road, and annex	do	4
6b	Giesboro	do	2
6b	Anacostia Road*	County	1
6b	Burville	do	1
6b	Good Hope	do	8
6b	Garfield	do	4
	High school	M street, between New Jersey avenue and First street northwest	
7	Sumner	Seventeenth and M streets northwest	10
7	Stevens	Twenty-first, between K and L streets northwest	16
7	Magruder	M street, between Sixteenth and Seventeenth northwest	8
7	Wormley	Prospect street, between Thirty-third and Thirty-fourth northwest	8
7	Chamberlain	East street, Georgetown	8
7	Briggs	Twenty-second and E streets northwest	8
7	Garrison	Twelfth, between R and S streets northwest	8
7	Phillips	N street, between Twenty-seventh and Twenty-eighth northwest	8
8a	John F. Cook	U street, between Vermont avenue and Tenth street northwest	11
8a	Garnet	O street, between Fourth and Fifth northwest	12
8a	Banneker	Third, between K and L streets northwest	8
8a	Jones	First and L streets northwest	8
8a	Lovejoy	Twelfth and D streets northeast	6
8a	Slater	P street, between North Capitol and First northwest	8
8a	Logan	Third and G streets northeast	8
8b	Lincoln	Second and C streets southeast	11
8b	Randall	First and I streets southwest	12
8b	Giddings	G street, between Third and Fourth southeast	8
8b	Anthony Bowen	Ninth and E streets southwest	8
8b	Bell	First, between B and C streets southwest	8
8b	Ambush	L street, between Sixth and Seventh southwest	8

\* Not used.



[illegible][illegible][illegible][illegible]

TABLE VI.—Average enrollment of pupils in the white and colored schools and the number of teachers employed for each year since the year 1880.

School year ending June 30—	Average enrollment.						Teachers.	
	First six divisions.		Seventh and eighth divisions.		Total.		Whole number employed.	Increase.
	Number.	Per cent of increase.	Number.	Per cent of increase.	Number.	Per cent of increase.		
1880.....	15,027	.....	6,573	.....	21,600	.....	434	.....
1881.....	15,494	3.1	6,567	.....	22,061	2.13	461	27
1882.....	16,063	3.6	6,763	2.08	22,826	3.46	485	24
1883.....	16,524	2.8	7,070	4.53	23,594	3.36	505	20
1884.....	16,642	0.71	7,225	2.19	23,867	1.11	525	20
1885.....	17,468	4.9	7,689	6.42	25,157	5.40	555	30
1886.....	18,720	7.1	8,191	6.52	26,911	6.07	595	40
1887.....	19,285	3.0	8,448	3.13	27,733	3.05	620	25
1888.....	19,762	2.4	8,791	4.06	28,553	2.95	654	34
1889.....	20,477	3.6	9,088	3.37	29,565	3.54	693	39
1890.....	21,077	2.9	9,289	2.21	30,366	2.70	745	52
1891.....	21,599	2.6	9,702	4.25	31,301	3.07	795	50
1892.....	22,264	3.0	9,942	2.47	32,206	2.89	845	50

TABLE VII.—Average enrollment of pupils, the number of teachers employed, the cost of tuition, and rates of increase for each year since 1880.

School year ending June 30—	Average enrollment.		Teachers.		Cost (excluding rent and permanent improvements).		
	Total.	Per cent of increase.	Number employed.	Increase.	Per pupil (based on average enrollment).	Aggregate amount.	Per cent of increase.
1880.....	21,600	.....	434	.....	\$16.95	\$366,190.51	.....
1881.....	22,061	2.13	461	27	17.28	381,314.19	4.12
1882.....	22,826	3.46	485	24	17.44	398,254.54	4.44
1883.....	23,594	3.36	505	20	17.78	419,594.60	5.35
1884.....	23,867	1.11	525	20	18.22	435,032.79	3.67
1885.....	25,157	5.40	555	30	18.66	469,550.51	7.93
1886.....	26,911	6.97	594	40	17.76	477,993.67	1.79
1887.....	27,733	3.05	620	25	19.11	509,194.01	6.52
1888.....	28,553	2.95	654	34	19.11	545,717.71	7.17
1889.....	29,565	3.54	693	39	20.11	594,774.73	8.98
1890.....	30,366	2.70	745	52	21.58	655,310.08	10.17
1891.....	31,301	3.07	795	50	21.44	671,124.08	2.41
1892.....	32,206	2.89	845	50	22.49	724,521.93	7.95

TABLE VIII.—*Whole enrollment of pupils in white and colored schools, the number of teachers employed, and the cost of tuition for each year since the year 1880.*

School year ending June 30—	Whole enrollment.						Teachers.		Cost (excluding rent and permanent improvements).		
	First six divisions.		Seventh and eighth divisions.		Total.		Whole number employed.	Increase.	Per pupil (based on whole enrollment).	Aggregate amount.	Per cent of increase.
	No.	Per cent of increase.	No.	Per cent of increase.	No.	Per cent of increase.					
1880.....	18,378		8,061		26,439		434		\$13.85	\$366,199.51	
1881.....	19,153	4.2	8,146	1.05	27,299	3.2	461	27	13.96	381,314.19	4.12
1882.....	19,031	0.63	8,289	1.75	27,320		485	24	14.57	398,254.54	4.44
1883.....	19,836	4.2	8,710	5.07	28,546	4.4	505	20	14.69	419,594.60	5.35
1884.....	21,221	6.9	9,167	5.24	30,388	6.4	525	20	14.31	435,032.79	3.67
1885.....	21,267	0.21	9,598	4.7	30,865	1.5	555	30	15.21	469,550.51	7.93
1886.....	22,198	4.3	10,138	5.62	32,336	4.7	595	40	14.78	477,993.67	1.79
1887.....	23,973	3.9	10,345	2.0	33,418	3.3	620	25	15.23	509,194.01	6.52
1888.....	23,810	3.1	11,040	6.71	34,850	4.28	654	34	15.65	545,717.71	7.17
1889.....	24,594	3.2	11,170	1.17	35,764	2.62	693	39	16.62	594,774.73	8.98
1890.....	25,468	3.5	11,438	2.39	36,906	3.1	745	52	17.75	655,310.08	10.17
1891.....	26,354	3.4	12,132	6.07	38,386	4.01	795	50	17.48	671,124.08	2.41
1892.....	27,398	4.3	12,280	1.21	39,678	3.36	845	50	18.26	724,521.93	7.95

\*Decrease.

TABLE IX.—*Amount expended for rent and sites and buildings each year from the year 1880 to the year 1892, inclusive.*

School year ending June 30—	Rent.	Sites and buildings.
1880.....	\$28,908.35	\$74,998.24
1881.....	26,506.11	103,416.91
1882.....	26,472.57	253,609.73
1883.....	14,805.33	103,141.47
1884.....	8,742.50	103,563.91
1885.....	7,060.00	118,400.00
1886.....	6,919.66	61,130.04
1887.....	7,354.00	73,085.34
1888.....	10,215.44	239,115.77
1889.....	14,832.00	332,312.44
1890.....	10,000.00	240,467.39
1891.....	9,892.00	229,078.00
1892.....	9,602.00	220,344.47

## THE FIRST SIX DIVISIONS.

The number of pupils enrolled during the year was 27,398—25,188 white and 2,210 colored. This is an increase of 1,144, or 4.3 per cent., over the number registered last year.

The average enrollment was 22,264, being 665, or 3.1 per cent., in excess of that of the previous year.

The number of pupils in daily attendance was 20,374, being 527, or 2.7 per cent., greater than that of the preceding year.



*Enrollment of pupils in the several kinds and grades of schools for the school year ending June 30, 1892.*

Normal school .....	46
High schools .....	1, 785
<hr/>	
Grammar schools:	
Eighth grade .....	2, 023
Seventh grade .....	2, 245
Sixth grade .....	2, 775
Fifth grade .....	3, 357
<hr/>	
Total .....	10, 400
<hr/>	
Primary schools:	
Fourth grade .....	3, 367
Third grade .....	3, 408
Second grade .....	3, 652
First grade .....	4, 745
<hr/>	
Total .....	15, 167
<hr/>	
Grand total .....	27, 398

TABLE X.—*Enrollment of pupils in the several kinds and grades of schools for school year ending June 30, 1892, compared with that for the previous year.*

Grade.	Whole enrollment.			
	1891-'92.	1890-'91.	Increase.	Decrease.
Normal school .....	46	45	1	
High schools .....	1, 785	1, 669	116	
Total .....	1, 831	1, 714	117	
Grammar schools:				
Eighth grade .....	2, 023	1, 911	112	
Seventh grade .....	2, 245	2, 187	58	
Sixth grade .....	2, 775	2, 648	127	
Fifth grade .....	3, 357	3, 340	17	
Total .....	10, 400	10, 086	314	
Primary schools:				
Fourth grade .....	3, 367	3, 324	43	
Third grade .....	3, 408	3, 273	130	
Second grade .....	3, 652	3, 424	228	
First grade .....	4, 745	4, 433	312	
Total .....	15, 167	14, 454	713	
Grand total .....	27, 398	26, 254	1, 144	

TABLE XI.—Showing the whole enrollment of white pupils within the city, by grades, for the school year ending June 30, 1892.

Grade.	Whole enrollment.			
	Boys.	Girls.	Total.	Per cent.
Normal school.....		46	46	0.20
High schools.....	982	803	1,785	7.72
Eighth grade.....	773	1,116	1,889	8.17
Seventh grade.....	877	1,171	2,048	8.86
Sixth grade.....	1,141	1,252	2,343	10.36
Fifth grade.....	1,496	1,423	2,919	12.63
Fourth grade.....	1,400	1,341	2,801	12.62
Third grade.....	1,433	1,354	2,787	12.06
Second grade.....	1,458	1,345	2,803	12.13
First grade.....	1,936	1,703	3,639	15.75
Total.....	11,556	11,554	23,110	100.00
SUMMARY.				
Normal and high schools.....	982	849	1,831	7.92
Grammar schools.....	4,287	4,962	9,249	40.02
Primary schools.....	6,287	5,743	12,030	52.06
Total.....	11,556	11,554	23,110	100.00

TABLE XII.—Showing the whole enrollment of white pupils in the first six divisions (city and county), by grades, for the school year ending June 30, 1892.

Grades.	Whole enrollment.			
	Boys.	Girls.	Total.	Per cent.
Normal school.....		46	46	0.18
High schools.....	982	803	1,785	7.09
Eighth grade.....	817	1,173	1,990	7.90
Seventh grade.....	951	1,237	2,188	8.69
Sixth grade.....	1,252	1,350	2,602	10.33
Fifth grade.....	1,616	1,542	3,158	12.54
Fourth grade.....	1,593	1,471	3,064	12.16
Third grade.....	1,585	1,502	3,087	12.26
Second grade.....	1,653	1,504	3,157	12.53
First grade.....	2,187	1,924	4,111	16.32
Total.....	12,636	12,552	25,188	100.00
SUMMARY.				
Normal and high schools.....	982	849	1,831	7.27
Grammar schools.....	4,636	5,302	9,938	39.46
Primary schools.....	7,018	6,401	13,419	53.27
Total.....	12,636	12,552	25,188	100.00

TABLE XIII.—Showing the whole enrollment of pupils (white and colored) in the first six divisions (city and county) for the school year ending June 30, 1892.

Grades.	Whole enrollment.			
	Boys.	Girls.	Total.	Per cent.
Normal school .....		46	46	0.17
High schools .....	982	803	1,785	6.51
Eighth grade .....	830	1,193	2,023	7.38
Seventh grade .....	971	1,274	2,245	8.20
Sixth grade .....	1,318	1,457	2,775	10.13
Fifth grade .....	1,699	1,658	3,357	12.25
Fourth grade .....	1,736	1,631	3,367	12.29
Third grade .....	1,743	1,660	3,403	12.42
Second grade .....	1,912	1,740	3,652	13.33
First grade .....	2,476	2,269	4,745	17.32
Total .....	13,667	13,731	27,398	100.00
SUMMARY.				
Normal and high schools .....	982	849	1,831	6.68
Grammar schools .....	4,818	5,582	10,400	37.96
Primary schools .....	7,867	7,300	15,167	55.36
Total .....	13,667	13,731	27,398	100.00

### SCHOOLS.

The number of schools below the high school was as follows:

#### Grammar schools, city:

Eighth grade .....	39
Seventh grade .....	42
Sixth grade .....	50
Fifth grade .....	56
Total .....	187

#### Primary schools, city:

Fourth grade .....	52
Third grade .....	53
Second grade .....	56
First grade .....	58
Total .....	219

#### County schools:

White .....	41
Colored .....	42
Total .....	83

Grand total..... 489

The average number of pupils to a school (based on the whole enrollment) was as follows:

High schools (to a teacher, excluding principal) .....	29.7
Grammar schools, city:	
Eighth grade .....	48.4
Seventh grade .....	48.8
Sixth grade .....	47.9
Fifth grade .....	52.1



## Primary schools, city:

• Fourth grade .....	53.9
Third grade .....	52.6
Second grade .....	50.1
First grade .....	62.7

## County schools:

White .....	50.7
Colored .....	52.6

## TEACHERS.

Six hundred and one teachers were employed, as follows:

Supervising principals .....	9
Normal schools .....	5
High schools .....	61
	<hr/> 75

## Grammar schools, city:

Eighth grade .....	39
Seventh grade .....	42
Sixth grade .....	50
Fifth grade .....	56
	<hr/> 187

## Primary schools, city:

Fourth grade .....	50
Third grade .....	51
Second grade .....	54
First grade .....	56
	<hr/> 211

## County schools:

White .....	40
Colored .....	39
	<hr/> 79

Teachers of music .....	4
Teachers of drawing .....	7
Teachers of manual training .....	15
Teachers of cooking .....	10
Teachers of sewing .....	9
Teachers of physical culture .....	1
	<hr/> 49

Total..... 601

The cost of the schools for supervision and teaching was as follows:

## Supervision:

Superintendent .....	\$3,300.00
Clerk .....	1,200.00
Messenger .....	300.00
Eight supervising principals, \$2,000 each .....	16,000.00
One supervising principal .....	1,500.00
	<hr/> \$22,300.00

Cost per pupil, estimated on average enrollment (22,264)..... 1.00

## Normal school:

Principal .....	1,500.00
Two teachers .....	2,000.00
Two teachers .....	1,600.00
	<hr/> \$5,100.00

\* This includes the cost of teaching ten practice schools, \$4,132.72.

Cost per pupil, estimated on average enrollment (46).....	\$20.54
High schools:	
Principal.....	\$2,500.00
Sixty teachers.....	50,445.00
	52,945.00
Cost per pupil, estimated on average enrollment (1,596).....	33.31
Grammar schools, city (39 eighth, 42 seventh, 50 sixth, 56 fifth grade schools).....	153,260.00
Cost per pupil, estimated on average enrollment (7,777).....	19.70
Primary schools, city (52 fourth, 53 third, 56 second, 58 first grade schools).....	*108,900.00
Cost per pupil, estimated on average enrollment (9,592).....	11.35
County schools:	
White schools (41).....	25,180.08
Colored schools (43).....	22,865.00
Cost per pupil, estimated on average enrollment:	
White (1,648).....	15.28
Colored (1,605).....	14.25
Special teachers (4 music teachers, 7 drawing teachers, 4 teachers of physical culture).....	11,300.00
Cost per pupil, estimated on average enrollment (22,264).....	.51
Teachers of manual training schools (of carpentry, 14; of metal working, 1; of cookery, 10; of sewing, 9).....	23,067.50
Cost per pupil, estimated on average enrollment (22,264).....	1.04
Cost per pupil for tuition in all the schools, including manual training, based on average enrollment (22,264).....	18.08

TABLE XIV.—Buildings and rooms occupied (owned and rented) in the first six divisions at the close of the school year ending June 30, 1892 (excluding the high schools).

	Divisions.								Total.
	First.	Second A.	Second B.	Third.	Fourth.	Fifth.	Sixth A.	Sixth B.	
Buildings owned.....	8	6	8	8	6	8	14	13	71
Buildings rented.....	1	a 2	.....	1	.....	1	b 1	.....	6
Total.....	9	8	8	9	6	9	15	13	77
Rooms owned.....	c 71	d 61	c 71	e 59	d 49	57	49	f 55	472
Rooms rented.....	g 2	h 15	.....	i 4	j 2	1	d 1	.....	25
Total.....	73	76	71	63	51	58	50	55	497

a One occupied by cooking schools and one by manual-training schools.

b Occupied by cooking school.

c One occupied by cooking school and one by manual-training school.

d One occupied by cooking school.

e One occupied by manual training, one by cooking, and one by sewing school.

f Two occupied by manual-training schools and two by cooking schools.

g One occupied by cooking school and one by graded school.

h Four occupied by cooking schools and eleven by manual-training schools.

i Two occupied by graded schools, one by cooking, and one by manual-training school.

Occupied by sewing (cutting) school.

\* To be increased by the cost of teaching ten practice schools, \$4,132.73.

## NIGHT SCHOOLS.

Table showing facts relating to night schools.

Schools.	Cost of teachers.	Whole number of persons enrolled during the year	Average attendance per night.	Percentage of attendance.	Number of sessions.	Number of teachers.
WHITE.						
High school .....	\$725	318	79	76.6	58	7
Franklin school .....	464	262	61	68.2	58	4
Henry school .....	464	195	36	76.3	58	4
Wallach school .....	464	204	53	72.2	58	4
Jefferson school .....	464	240	59	59.5	58	4
Curtis school .....	174	40	10	68.5	58	1
Newsboys' Home .....	116	54	7	59.2	58	1
Messenger Boys' Home* .....	28				14	1
Total .....	2,899	1,313	305	69.9		26
School of cookery, 607 O street NW ...	145	31	9	77.2	58	1
Total .....	3,044	1,344	314	70.1		27
COLORED.						
Mott .....	362	165	80	93.8	58	3
Hillside .....	261	45	30	89.6	58	2
Total .....	623	210	110	92.6		5
Grand total .....	3,667	1,554	424	74.9		32

\* Discontinued.

## FREE TEXT-BOOKS.

The furnishing of free text-books and supplies to the first four grades of school last year was a new feature of our work.

The work was attended with but little difficulty, although much additional labor was involved.

General supplies—as ink, chalk, and a few other articles—were purchased out of the contingent fund in accordance with the ruling of the District auditor, who decided that the free text-book fund could be used for the purchase of only such books and supplies as had in previous years been purchased by the pupils.

The appropriation for free text-books was \$25,000. Of this amount the sum of \$24,779 was used.



There were purchased—

Articles.	Quantity.	Amount expended.
Primers.....	6,132	\$919.80
First readers.....	12,384	2,421.45
Second readers.....	6,088	1,793.70
Third readers.....	6,020	2,405.48
Fourth readers.....	4,716	2,317.00
Geographies.....	4,116	1,800.75
Arithmetics.....	4,176	1,322.00
Health primers.....	3,660	869.25
Music readers.....	8,640	2,865.60
Music pamphlets.....	2,400	290.95
Arithmetic readers.....	1,800	300.00
Writing tablets.....	7,873	623.20
Writing cards.....	7,752	613.70
Writing books.....	16,572	1,615.77
Drawing tablets.....	33,750	1,046.25
Slates.....	10,236	618.42
Slate pencils.....boxes.....	600	48.00
Lead pencils.....gross.....	782	774.80
Rubber.....pounds.....	70	51.00
Modeling paper.....reams.....	10	95.00
Composition and practice paper.....reams.....	449	1,076.40
Additional expenses:		
Custodian.....		600.00
Hauling.....		151.50
Express and freight charges on books, etc.....		106.98
Books of record.....		24.50
Blanks for supervisors and teachers.....		26.20
Repair of stamps.....		.50
Unexpended balance at the close of the year.....		221.00
Total.....		25,000.00

The number of pupils enrolled in the four grades that were supplied with free books was 24,086, making the cost per pupil \$1.029.

The cost was distributed as follows:

Grade.	No. of pupils.	Total cost.	Average cost per pupil.
First.....	8,005	\$5,748.43	\$0.718
Second.....	5,814	3,385.01	0.582
Third.....	5,390	6,480.37	1.202
Fourth.....	4,877	9,165.19	1.879

Everything purchased was issued except a very few books and a small quantity of writing paper, the purchases being made with great care, as the enrollment of pupils indicated a need in the various grades and in the different school divisions.

A little waiting for books or supplies was occasioned at the beginning of the school year by reason of the conservatism exercised in purchasing.

At the beginning of the school year the honorable Commissioners issued the following order for the distribution and care of books:

OFFICE OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA,  
Washington, D. C., September 14, 1891.

Ordered, That the following rules governing the purchase, distribution, and use of free text-books and supplies are hereby adopted:

That the superintendent of schools shall, as soon as possible, estimate the number of pupils in each grade who will probably attend the school during the school year beginning September, 1891; that he shall, with such number of pupils as a basis of reckoning, determine the number of books of each kind required as also the quantities of other necessary articles required for the conduct of said schools in said grades, and report the same to the Commissioners.

That when the number of books and the quantities of supplies have been determined, bids shall be invited according to law for furnishing said books and said supplies, the contract to be awarded to the lowest responsible bidder at the discretion of the Commissioners, according to law.

That books and supplies for free use shall be bought as books and other supplies have been bought for the schools in the past, on the requisition of the superintendent of schools, with the approval of the president of the board of trustees and of the Commissioners of the District.

That the different supervising principals shall make requisition for such books and supplies as may be needed in their schools upon their respective superintendents, which requisition, upon the approval of the superintendent in charge, shall be honored by the custodian, a strict account of which shall be kept by the superintendent.

That each supervising principal shall be held responsible for the care and return of all books ordered by him, and shall be held responsible for the economical use of all supplies ordered.

That the supervising principals may, in their judgment, issue books and other school supplies for their several schools on the requisition of the teachers thereof, a strict account of which shall be kept by the supervising principal.

That the teachers shall be held accountable for the care and return of all books issued to them, and for the proper use of all supplies issued to them.

That a strict account shall be kept by the teacher with each pupil on blanks furnished for the purpose.

That the books are to be for the use of the pupils in the school; such books, however, may be taken home by the pupil whenever, in the judgment of the teacher, it is thought desirable to grant this privilege for study or for the preparation of lessons. The teacher, however, shall be held accountable to the supervising principal for the preservation and return of such books.

That any pupil materially injuring or destroying a book, slate, or other supply shall be made to replace the same or to pay for the same and may be deprived the privilege of school until this requirement is complied with.

That in the case of resignation, withdrawal, or removal of a teacher the supervising principal shall make a strict examination of said teacher's school to ascertain if all books and supplies issued to said school are on hand and in proper order, or otherwise properly accounted for, before the pay certificates for the last month preceding such resignation, withdrawal, or removal shall be issued to the teacher.

That at the end of each school year every teacher shall render, in writing, a strict account to the supervising principal in charge of all books issued to him or received by him from the teacher preceding him, and the supervising principal shall satisfy himself that such accounts are correct, and that the number and condition of books and the quantities and condition of supplies are satisfactory or that such books and supplies have been satisfactorily accounted for, before the pay certificates for the month preceding the close of the year shall be issued to the teacher.

That the supervising principals shall render a strict account to their respective superintendents of all books and supplies issued to them for the year, before receiving their pay certificates for the last month preceding the close of the year.

That the superintendents shall, at the close of the year, render to the Commissioners a strict account of all books and other supplies received by them by requisition as well as of such books and supplies on hand at the beginning of the year.

JOHN W. DOUGLASS,

JOHN W. ROSS,

*Commissioners, D. C.*

Great care was exercised in distributing and using the articles furnished to prevent both the loss and the abuse of books and the careless and extravagant use of perishable articles.

A few books were lost or destroyed, every one of which was replaced, so that the loss was nothing. This remarkable showing is due to the conscientiousness of teachers who, in some instances, replaced the lost or damaged books.

The teachers did the new work imposed on them with intelligence and with a faithful and conscientious discharge of every responsibility.

The experiment, if such it may be called, was in every way a success.

It was assumed, in making a plea for free text-books, that there were children in the community who were deprived the privilege of schools because their parents or guardians could not afford to buy books and other necessary articles, and that if these were furnished the attendance would be increased; *i. e.*, that the schools would reach more persons. The supposition has been verified as far as it is possible to verify it by the experience of one year.

The average increase in the enrollment of pupils in the first four grades of school for the five years preceding the last year was 1.3 per cent, whereas the increase of enrollment during the past year in the same grades was 3.3 per cent. It is not known of course whether or not the population increased in a greater ratio during the past year than during the previous five years. I think, however, that it may be safely assumed that by making the schools absolutely free we shall more nearly reach all whom the schools are intended to reach.

There is little doubt that the logic of free schools will lead eventually to furnishing everything needed by the child.

There are some advantages secured when books are furnished beside that of a pecuniary saving to the pupil and that of reaching more pupils with school influence.

1. It is a great advantage in the saving of time and worry to have supplies of books ready when they are wanted. This condition can not be secured when pupils purchase their own books, for obvious reasons. The delay occasions repetition of work and other economic losses. To prevent such losses many articles of general use, as chalk and ink, had been furnished by the schools for years before text-books were furnished.

2. By supplying the children with what is needed a greater variety



of books can be used without additional cost. Thus more variety and more breadth may be given to the instruction. For instance, half sets of reading books may be furnished instead of one whole set. As only one-half of the school should be taught at once, a half set is all that can be used at once. Thus may the pupils be made to read two books instead of one with an expense of but one book. The advantage of this is obvious. This use of books is not practicable when pupils buy their own books because it involves a borrowing and lending of books that is out of the question, or the buying of more than one book by the pupil.

The advantages here alluded to are felt chiefly in reading, history, and geography classes.

#### THE GROWTH OF OUR SCHOOLS—WHERE IT HAS BEEN—SOME REASONS FOR THE SAME.

The action taken by the United States Senate, at the instance of Harvard University, making inquiry respecting the conduct and efficiency of our high schools, renders it permissible, perhaps even advisable, to present in this report some of the facts of the management and growth of our school system during the past few years.

“Education for all” and “free public schools” are terms that are nearly synonymous.

“If you don’t see what you want, ask for it,” however, expresses but a part of the controlling genius of the public-school idea. The idea of “education for all” contemplates benefits to those who are indifferent to their own welfare as well as for those who desire and seek opportunities for improvement. It proceeds on the assumption that the beneficiaries in some, perhaps in many instances, do not know their best interests and therefore will not, unaided, elect a course of acts that will best subserve their welfare.

It is not enough that all who desire may have opportunity for education. The genius of free education is missionary in part. It seeks to benefit society by aggressive means, purposive efforts, in forming its multiplying increments. But the genius of the government under which our free schools exist does not brook compulsion except as a last resort. This is shown by the establishment of kindergartens for getting hold of the child before bad habits are formed; by the establishment of night schools to give additional chance to those who regret lost opportunities; and by other alluring means of opportunity, as public libraries, etc., before resort is had to compulsion.

Education must not only be made free, but it must be taken to the people and the people must be helped to accept it by giving them seductive experiences with it.

A thousand books in a central library will not have as many readers as the same books divided among ten depositories where the many will come in contact with them by reason of their other associations,

Many more children will attend school in ten buildings located so as to be convenient to all than will attend the same number of schools massed in a central locality.

It is not enough to offer opportunity for education to all. The means must be made attractive, and must be thrown in the way of those whom it is desired to reach.

Actuated by considerations set forth in the foregoing remarks the efforts of the school authorities for a number of years have been directed with consistent continuity to providing opportunity for the many. It has been our policy to carry opportunity to the child, and to make such opportunity tempting and seductive. The board, accordingly, has asked of Congress appropriations for an increase in the accommodations for the lower-grade schools to be placed where those for whom they were intended would be accommodated in reality.

What has been done by Congress during the time to which allusion is made is of interest. An account of it is not out of place here.

At the beginning of the school year in the fall of 1885, there was an attendance in our schools of 31,294 pupils below the high school. To accommodate this number of pupils there were 368 schoolrooms. (The high schools at that time were amply provided for in the central high school and by renting the Miner building for the colored pupils.) This made it necessary for 11,894 pupils to be provided for in rented rooms or to be sent to half-time schools with the same number of others who would be compelled to share with them the accommodations provided. It is next to impossible to rent rooms that are fit for school purposes either as respects convenience or healthfulness. The disadvantage of half-day schools has been set forth in more than one annual report issued from this office. It need not, therefore, be more than mentioned in this place. The sufferers because of inadequate facilities in every instance were the children of the lower grades.

It is a matter of record, a fact known by all who know schools and school work, that the mass of children never attend high-grade schools however numerous or conveniently located they may be. The masses get all the education they ever receive in the lower-grade schools. It was thought wise and right that every reasonable effort should be made to provide good and ample accommodations for all who should be given instruction in the lower grades, to the end not only that a good school might be provided for every child asking for it, but that a good school should be offered every child. The exact condition of affairs was made public, and Congress was asked to make appropriations for additional room for primary and intermediate grade pupils. The result has been most gratifying. During the school year ending June 30, 1892, there were 37,413 pupils enrolled in our schools in grades below the high school. For the accommodation of these there were 656 schoolrooms. This shows an increase of 19.5 per cent in the number of pupils taught during the seven years under consideration, while the

increase in the number of schoolrooms for their accommodation is 79 per cent. During the seven years there were built for the accommodation of pupils in grades below the high school 1 nine-room house, 32 eight-room houses, 3 four-room houses, 2 two-room houses, 1 one-room house, and 10 additional rooms to other buildings.

Number of houses owned, excluding high schools—

1892 .....	93
1885 .....	54
Increase for the seven years .....	39

Small rather than large buildings have been made, that the schools might be near the pupils, and that danger in going to and from school might be avoided as far as possible, and that exposure to inclement weather might be reduced to the minimum.

#### EXAMINATIONS.

In the year 1886 the board of trustees abolished examinations as tests for promotion from grade to grade below the high school, and as tests for entrance to the high school.

At that time I interpreted this action of the board to mean that it is more important—

(1) To know that the teachers understand the purpose and scope of the different kinds of work prescribed for the grades in which they teach, respectively, than the average percentages of their schools obtained by answering five or ten questions asked by a committee or a superintendent;

(2) To know that the teachers understand and use those processes by which all the pupils may best be developed morally, mentally and physically, than that certain numbers of their pupils have reached a given average in the prescribed branches of scholastic work;

(3) To know that every child in the schools is trained to work most advantageously and naturally, than how he stands in his studies in relation to other members of his class;

(4) To know that every child is trained to do better work, more profitable work, each day, than that in the estimation of some one who has rated his answers he has made one-half per cent higher standing than some other member of the class;

(5) To know that the children are learning where to get information, how to get it, and what to do with it, than the names or number of those who remember at a given moment the greatest amount of what they have learned;

(6) To know that scholarly desires and habits are cultivated in the school and scholarly processes are adopted by the children, than that they stand high in some or all of the studies pursued.

I interpreted this action to mean that it is important—

(1) To know that no child is injured by undue stimulus, that no child,



however dull, is discouraged by unwise criticism or bad methods of teaching;

(2) To know that children are learning to do good work, are improving day by day for the sake of the work and the improvement it brings, and not for the sake of getting higher marks than their associates;

(3) To know that the pupil's motive in studying is to learn and grow, rather than to stand high in examination, or even to be promoted; and, finally,

(4) To know that by the processes of the schools, both teacher and pupil do not, in their nervous anxiety over percentages and averages, lose sight of that better, that chief part of their work, the development of integrity and moral character.

Written examinations relieve the superintendent and his assistants of much responsibility, though adding greatly to the drudgery of their work. A large part of this responsibility is thrown upon the teacher, who, by the processes of teaching thereby made necessary, shifts a portion of the responsibility upon the pupil. By the abolition of written examinations the teacher is left free to exercise an intelligent and useful individuality in the choice of matter and methods, and by the teaching thereby made possible the pupil is freed from a nervous, feverish responsibility; spontaneity is encouraged and developed, and the natural growth of power and increase of knowledge ensue, with the least possible nervous expenditure.

This change of method for making promotions may have been, undoubtedly has been, in some measure, a cause of growth in the higher grades of school. It is asserted by those who have done continuous teaching in the upper grades of the schools, including those of the high school, that pupils have come to their respective grades as well prepared to do the work as those who came in former years who were admitted by examination tests. The tendency of the nonexamination scheme of conducting the schools is in the direction of longer school time for those who attend.

If it is admitted, then, on the testimony of those who have taught long under both plans of promotion, that the scholarship secured by the one plan is as good as that secured by the other, it follows that the nonexamination plan is in the interest of more education for the community.

Increased relative attendance is shown in the grades just below the high schools.

In the year 1885 the enrollment in the eighth grade grammar school was 1,319. In the year 1892 the enrollment in the same grade was 1,990, showing an increase in the seven years of nearly 51 per cent, whereas the schools as a whole increased but 21.8 per cent during the same years.

There can be no doubt that the freedom from nervous strain that is the inevitable concomitant of test examinations and of the work

that prepares for them has been the means of keeping many nervously inclined boys and girls in school longer than they would have stayed had examinations been required.

#### NIGHT SCHOOLS ESTABLISHED.

Simultaneously with what was done as set forth in the foregoing remarks, night schools were established in nearly all parts of the District. These schools have added to the expenditure for school purposes, but have afforded opportunity for improvement and education to a large number of persons that could not or would not attend day sessions. The number of persons benefited by the night schools annually is nearly 3,000.

#### CHANGE OF WORK IN LOWER GRADE WORK.

Much money has been used and much effort expended in broadening the work of the lower grade schools and in changing and correlating the activities of the child in efforts for its accomplishments—

(1) By the introduction of manual training (shop work), cooking (laboratory work), and sewing, each of which has been given to all who were fitted to take it.

(2) By diverting the drawing done in the schools from flat work to object work of seeing and representing, and to inventing and constructing, by use of materials adapted to the various purposes.

(3) By the introduction of elementary science study, that has made all other work more intelligible by laying a proper foundation for it, and has caused all other work to be more intelligently done.

Plants are studied in the lower grades of the school, not for getting a knowledge of botany, but as a means of training the child to see and as a means of putting him in possession of correlated information for the learning and exercise of exact expression and the correct and sensible use of language, and for making material with (to him) meaning to it for his early reading lessons.

The facts of the forms and habits of familiar animals are learned that the learner may be trained in methods of getting knowledge first hand, and for intelligent practice in the use of English idiom in the formulation of such knowledge.

The simpler elements of chemistry, and the simpler fundamental laws of physics, and the more easily obtained facts of physical geography are taught by means of objects for reasons as above stated, and also to furnish the minds of the children with knowledge of facts acquired first hand (by coming in contact with things rather than with symbols), that will serve as interpreters of what they will be asked to learn later in their course of study in the schools.

We must for a long time compare sight with touch if we would accustom our eye to report forms and distances accurately. Without touch and without progressive movement the keenest eyesight in the world could give us no idea of extent. To an



oyster the entire universe can be only a single point. Only by walking, feeling, counting, and measuring do we learn to estimate distances.—Rousseau.

There is every reason to suppose that the act of referring impressions to things or objects in space, though appearing to us so simple, immediate, and irresistible, is the result of a long process of acquisition of learning from experience.—Sully.

#### CAUSES FOR INCREASED ATTENDANCE IN THE UPPER GRADES OF SCHOOL.

Our course of study offers variety in mental activity by the number and character of subjects that are studied. It requires physical activity in variety in the prosecution of investigation, thus coördinating physical and mental activity in securing educational ends sought. It therefore offers variety in lines of work by which pupils may reach equally valuable educational results.

By the same causes it gives a broader, better, and more intelligent outlook on the many departments of knowledge beyond the learner, and therefore opens a greater number of fields for continued ambition or desire for usefulness. Thus is learning made attractive, thus relieved of its drudgery, resulting in pupils remaining longer at study by choice.

No doubt both the freedom from examinations and the variety and coördination of mental and physical action involved in the work of our schools have been causes in some measure for an unusual growth of the upper grades.

#### THE WORK IS HEALTHFUL.

Another result of variety in mental activity; of relief from memoriter learning, secured by original investigation and experiment; of contact with things in the early stages of learning, instead of with symbols of things; of the employment of physical activity for stimulating mental activity and helping the mind in building concepts, is the conservation if not the improvement of the health of the learner.

A strictly didactic, memoriter method of teaching and learning, respectively, can never be conducive to health either of teacher or of pupil.

There have been, therefore, other and better reasons for broadening the work in the lower grades of our schools than that we might broaden the knowledge of the children.

A relationship between the excitation of the brain and mental activity has been fully established by experiment and observation, being now accepted without question. The brain is the great central or meeting point of the nervous system. It may be called the physical basis of mind.

No matter whether brain is mind and acts as such or whether mind is superior to and wholly outside of brain causing it to act, it is nevertheless true that every primary psychical process is caused by a physical irritation or process. It is known that an unsound brain can not



act as a sound mind, or, if the other view of mind be taken, it is known that an unsound brain can not be depended on to do sound work when acted on by the mind.

We know, too, that the brain is physical, and that it is susceptible to improvement or damage. "A sound mind in a healthy body" is conducted in the early stages of learning by activity of the body coöperating with the mind to obtain the knowledge sought. The activity of the body that supplies the mind with its causes for action and its means of action produces its growth, and is thus the truly healthful activity.

Whatever the mind is, the seat of the mind, the immediate home of the mind, is physical. The physical instruments of mental action, like other physical instruments (human), may be kept alert and in a healthy state by action suited to their nature and structure.

Mental activity is followed by an increase of those waste products which are known to be elements of nerve cells.—[Sully.

When a shock imparted to the mind causes violent emotion it produces a real commotion in the molecules of the nervous paths of communication and produces a definite physical effect in physically constituted mind centers.—[Maudsley.

The end organs of the nerves, and the organs to which they are attached when sensations are started by contact with objects to be perceived; the nerves themselves, the conductors of these impressions, and the brain masses, the centers of receiving and distributing organs of sense impressions without whose offices there can be no mental action, are all physical. These are subject to the laws of physical growth and decay. These are kept sound and healthy by care and judicious exercise, both mental and physical, in coördinated purposive effort. Not only their size, but the degree of their complexity, depends on physical action and on diversity of physical action. If, for instance, the sensation of resistance were not conveyed to the brain centers by nerves having their end organs in the muscles, the child could never be made to understand gravity and weight, cohesion and toughness.

This opens up a branch of mental training for reasons of health alone, for which our educational processes are to be held responsible.

As civilization develops and machinery is made to do more of the work that hands have heretofore done, as children are born to urban life, where contact with things is the exception rather than the rule, it will grow more and more imperative that the schools shall arrange their processes of education to make good the loss. This will not be a difficult task. It has been demonstrated, and is now accepted as a truth, that the processes that are best calculated to develop mental strength and activity, if directed in the right channels, afford opportunity for most economically teaching those mechanical processes that are established and expected products of education and at the same time for acquiring that information that is useful and that lies at the base of all organized information.

As might be expected the same processes, by use of the same materials, will constitute the very course of physical training that the psycho-physical nature of the child demands.

What an opportunity is afforded by a course of study that deals largely with things in its early work for the exercise and development of the end organs of sense, in skin, muscle, and eye, in handling, dissecting, and preparing, and by representing in plastic material the world of objects there found; what healthful exercise must be given to the nerves, the conductors of sensations, and what growth and vigor must be given to the brain centers in perfecting percepts and in helping to build concepts.

Physical, purposive contact with objects varied as are the possibilities of the human mind to distinguish qualities or tone-colors; physical, purposive efforts with objects, grouped and directed, varied as are the form elements that must be taught in a system of representation; physical, purposive efforts with objects, with and without tools, grouped and directed, but varied and diversified as are the qualities of objects that are conveyed to the brain centers only by nerves that have their end organs in the muscles; these are the exercises to give health and growth to the organs of sense, including the brain, physically considered.

Thus may a system of physical training best calculated to give health and strength to brain and muscle be identical with a system of exercises in learning and making forms as a part of a drawing course, and at the same time identical with a system prescribed for teaching other branches of learning demanded, and for giving skill in those mechanical processes that our schools are expected to secure.

#### OTHER MEANS EMPLOYED.

The health of our pupils has been further cared for by a systematic course of physical training under the direction of special teachers.

That our efforts to conserve the health of pupils have caused an increased enrollment by a longer attendance on the part of those enrolled there is no reason to doubt. This increased attendance would show itself logically only in the upper grades of the school, where it has been shown there is a relatively large increase of attendance.

#### FREE TEXT BOOKS.

Efforts were next made to induce Congress to provide free books and supplies, in which effort there was success. The results of this movement have been set forth in the foregoing pages of this report.

#### OUR HIGH SCHOOLS.

It was in the same spirit, namely, that the many who desire it may have an opportunity, and that another multitude not desiring it may be induced by its seductive influence to study in grades of work higher



than the grammar school, that branch high schools were established, if I have not mistaken the intention of those who were instrumental in their establishment.

The wisdom of creating these branch schools for east and west Washington, respectively, has been made apparent by their history since their establishment. What is said of the eastern and western branches of the high school is true also of the business high school, which was established at the same time. An experience of two years has given opportunity for testing the usefulness of these schools and their right to exist. They have been very prosperous. The people of the respective sections of the city where they are located have shown great interest in them. Their growth, however, has not been at the expense of the central high school, as that institution has lost none of its prosperity.

Much of their prosperity has been due to the fact that they have been wisely managed and well taught. The board exercised unusual care in the selection of principals and teachers, who have for a guide in their work the experience of the central high school as well as the constant advice and, when needed, the oversight and direction of the accomplished principal of that school, Dr. Lane. Much of the success of these schools is due to the pride that the people have taken in having schools of a high grade near home as a part of a home system. The city is so large that the central high school is far away (away from home) to many who desire to send their children to a high school. To such persons it is "a high school" simply, and not "our school;" whereas each of the branch schools, because of its proximity, is to all who send to it "our school," and for this reason is the recipient of a fostering care and is the object of an individual pride which only conscious ownership gives.

These schools were established in the interest of more education or of higher education for the many. Each was so placed as to become a part of the home school of the people whose children it was sought to benefit, so that each person could know the school and become interested in it as a part of the system of schools in his neighborhood and thus consider it his school.

Some of the success that characterized the management and teaching of these schools was no doubt due to the spirit of rivalry between them, and between themselves and the central high school, which was in every way healthful and desirable.

Much of the attendance, particularly that which may be considered the increase, was due to the fact that schools were near home and easy of access. Many who want more education than the grades below the high school offer, and to whom the State is interested in giving such education, can not afford two car fares daily in addition to all the other expenses incident to attending such a school. Much of the attendance was due to the fact that some, perhaps many, went to school because it was convenient to go. This is the class of young people for whom the State should have the greatest solicitude. It is they who drift.



Their drifting most frequently carries them into untrustworthy currents, or currents whose flow carries the floater into danger. From a moral as well as from a financial consideration nothing will pay better than to catch the persons whose tendency is to drift, and to make an effort to direct them into channels that are safe and that offer employment to mind and hands.

It was thought during all this effort in laying a broad foundation for a school system that a school, though not attempting at first the grade work to be desired in an ideal institution of the kind, which, however, instructs the many, and whose influence is ever for more and better information and discipline, is of more value to the State or community than one whose requirements are so severe that but few can ever hope to receive the benefits of its tuition.

As was to be expected by anyone acquainted with the growth of public schools in America, the high schools grew in proportion to their opportunity for growth. This is the logical result of public school existence, unless the high school is especially antagonized. But such is the school sentiment of this community, and such the conditions of social and business life here, that our high schools increased in numbers more rapidly during the seven years to which I allude than the grades below them. There is possibly one slightly influencing special administrative cause of this growth, to which I have referred under the head of examinations. In 1885 the high-school pupils numbered (white) 745; in 1892 they numbered 1,785. This shows an increase in attendance of the high schools of 139.6 per cent during the seven years, while the grades below increased but 17.2 per cent, and the entire school attendance but 21.7 per cent.

Furthermore, before it was desirable to force a high grade of work for a few who might choose to avail themselves of it, it was advisable, to put it mildly, to provide for correct and profitable teaching in the various branches of study already offered the pupils. Concerning what has been done in the department of science I quote from my last annual report:

#### LABORATORY WORK IN THE HIGH SCHOOLS.

Referring to the reports of the principals of the high schools, I call your attention to the change that has taken place in the teaching of science in those schools within a few years. Owing to a lack of appliances and a teaching force restricted in numbers the reform was not accomplished as soon as was desired by those having the work in charge.

The lecture or didactic-illustrative method of teaching a science requires but little apparatus.

The value of such teaching is proportionally small. The younger and less experienced the learner the less the value of such teaching.

The text-book verification method of teaching requires more room for work, more apparatus to work with, and more time in which to work, and is proportionally more valuable. Of course, more teachers are necessary when this method is employed.

The experiment observation conclusion method requires more space, more appa-

ratus or appliances, and more time by far than either of the other two methods. More teachers are also necessary to teach a given number of pupils. This is the ideal method of teaching young people if, indeed, it is not the only profitable one.

For the necessary room, the indispensable apparatus and the adequate teaching force to make this method of teaching possible we have been unremittingly striving for the past five or six years. We have been gaining ground each year, taking from the contingent fund everything that could be spared for the purchase of apparatus, specializing the work and adding to the number of teachers.

We passed into the second stage—the verification stage—several years ago.

The new houses will give us ample room in which to work. Having now a reasonably good supply of appliances, especially for chemistry and biology, we hope hereafter to be able to employ the necessary force of instructors to insure ideal teaching.

The character of the teaching of the sciences enforced by the lack of room and of apparatus has caused the persistent effort that has been made for a few years to secure more and better accommodation for our high schools.

All of these changes referred to in the foregoing pages have cost much money and have taken much time for their accomplishment. They were, however, necessary steps in carrying the school to a higher plane of work in harmony with the thought and progress of the age in which we live.

All these could have been made much more rapidly than they have been had there been unlimited means at the disposal of those directing the work.

The grade of the high school was not lowered by the extension of the opportunities it offers. The reverse of this is true without doubt. An earnest effort has been made alike by those in authority in the lower grades of schools and those who manage the high-school work to make the work of the schools continuous from the first grade through the high school. The effort has been successful in a gratifying degree.

The hiatus between the eighth grade and the high-school, which in former years prevented many from entering the latter, has been filled, so that it is now no more difficult to pass from the grammar school to the high school than it is to pass from one grade to another either in the high school or in the schools below the high school. To accomplish this desirable result some concessions were made on both sides. The losses to scholarship and culture, if any occurred, were fully compensated by the gains.

That the grade of work done in the high school has not deteriorated, or that it has been made better, is a difficult thing to prove except by the testimony of those who have done continuous teaching in the schools for many years. The following is, however, of interest:

In 1885, 745 pupils (white) were enrolled in the high school, of whom 271, or 36.4 per cent, studied Latin and other branches that are considered preparatory work for college.

In 1892 1,785 pupils were enrolled in the same school, of whom 777, or 43.5 per cent, studied Latin and other branches leading to colleges. This shows a gratifying increase in the relative number of pupils presumably expecting to continue study somewhere in higher institutions of learning after leaving the high school.



The high school could have been forced to do a higher grade of work than it has done, if by higher grade of work is meant the one or two additional studies, or a few additional sections not now given but required for entrance to college; but with a given (limited) amount appropriated for the support of schools it would necessarily have been done at the expense of high-school privileges for the many and of better and broader learning in grades below the high school.

From the foregoing it will be seen that the efforts expended during the past half dozen years in the schools of Washington have been directed largely—

(1) To making the schools thoroughly healthful, morally, physically, and intellectually.

(2) To extending their benefits to more persons, reaching out after and alluring the many.

(3) To broadening the lines of work in the lower grades, insuring thereby at once better preparation for life, better preparation for advanced work, and greater certainty of continued advancement after leaving school.

The schools have been given new lines of elementary and correlated work rather than higher departments of studies. This has been done to make them broader. The tendency of the former policy is to keep many pupils in school for a longer time, whereas the tendency of the latter policy is to retain only the few fortunate pupils for a longer time.

The board has provided for the proper teaching of these new lines of work. This is shown by the action of the board when adjusting salaries, and when estimating for salaries in providing first for the lower grade schools, and by giving for the support of the high schools only what remained of the appropriations.

A foundation for a comprehensive system of schools has been laid on broad lines all of which are now in successful operation. Not only is there a broad foundation in the primary schools, but there is a healthful homologous growth through the intermediate and grammar school grades, extending into and including the three years of high-school work.

It is now time to foster the fourth-year work which it has been decided to add to the high-school course, if it can be done without endangering the work of the lower grades.

There has always been a contingent of pupils who desired and some who even sought more instruction at our hands. These would have been provided for had there been money enough to teach them in higher grades and at the same time carry the lower-grade instruction to those whom the schools should reach first. That fifty pupils returned to the school for further instruction after graduating from the three-years' course last year shows how great is the contingent now, and how important it is to extend the course.

The high school is now in an excellent condition to take on a fourth year of study. When this fourth year shall have been fully developed



the school will send forth a large number of pupils annually into higher schools, some of whom by the possibilities of their preparation will go into polytechnic schools, others into scientific schools, and still others into schools of applied sciences, still leaving a larger number to go to the purely classical college than we could have sent had our efforts been directed to making our high school a college-fitting school to the neglect of the lower-grade schools.

This fourth year of work can not be made what it ought to be, what the citizens of Washington expect of it, and what they have a right to demand of it, without more stability in the teaching force of the high school. This can not be secured except by paying better for the teaching.

Most of our teachers for the high school come to us unskilled in their work. Like the unskilled gripmen on our new cable lines, they cause many breaks and many blunders and much delay. When by practice they become expert and therefore valuable, they leave for more profitable places.

It is not necessary that all should be teachers of experience, but it is necessary that the heads of departments should be competent by education and by their experience to direct their respective lines of work. A number of larger salaries must be allowed, that men and women may be secured for these leading places who will be permanent.

With a dozen good salaries added to the cost of our high schools they can be made a pride to the city and a blessing to our youth.

#### HIGH SCHOOL ACCOMMODATIONS.

The accommodations for the high schools have kept pace with their growth. With the exception of the business school, which must be provided for, but which at this writing is well accommodated in the Miner building (rented), our high-school buildings will be ample for another decade, even if the city continues its present rapid rate of growth. Congress has shown as great liberality in providing homes for these schools as it has shown in the provision for the lower grade schools.

#### SCHOOL WORK.

But little need be said here respecting the progress of the work in the various branches of study. This is fully set forth by my associates, the supervising principals, and the heads of departments or directors of special lines of work. A few details are perhaps desirable.

#### MUSIC.

As the plan of teaching this branch is in a transition state, I have thought it advisable to make special mention of it in this place.

In the report of last year brief allusion was made to principles and

ideas resulting from the study of the possibilities of music in the development of the child. The greatest value of the study of music is undoubtedly its effect upon the æsthetic side of the child's nature. It is not necessary to elaborate this fact, it being well established; yet it is often lost sight of in teaching the subject.

It is also indisputable that by the careful study of singing the sense of hearing is cultivated to an extraordinary degree. The vocal organs and the lungs are both strengthened, thus improving the general health. The study of singing also furnishes admirable means for the training of keen and sustained attention, swift and accurate judgment, retentive memory, and active imagination.

The beauty of music depends upon the character of the composition, the skill of the performer, and the quality of the instrument. In singing the instrument is the voice. The qualities desirable for a musical instrument—length of range, sweet, smooth, even, full tone—can be developed in the voice until it becomes as sensitive and accurate as the finest of instruments. Of course, this can be done to perfection only under the most skillful specialists and with extraordinary voices, but in all schools, under the general teacher, the voice of the average pupil may gradually develop a pure, smooth, full, even tone that is thoroughly musical.

Results which would have been deemed impossible a few years ago are now secured. The subject of voice culture in its relation to other school work has been carefully studied. It is known that broad principles can be applied readily to class work by the general teacher.

The points in brief are these: From the very first grade the children are taught to assume a correct position of the body during all singing. They are also given (coöperating with the efforts of the health teacher) special exercises to limber the muscles of the face so that they may sing with open mouths and throat, one of the requisites for the production of pure tone.

The children are never allowed to sing loud or beyond their natural compass, forcing the voice and straining the vocal chords, which error has been so marked in general school singing. On the contrary, the voices are kept down to their natural volume and compass, thus developing power gradually with growth. In addition, special technical exercises are practiced for the production of sustained tone, and also for the development of evenness, smoothness, and flexibility. In our schools, during the last two years, special stress has been laid upon this important part of the singing. As a result of the faithful application of these principles the quality of tone throughout the city has been improved to a remarkable degree. The children in the majority of the schools have acquired correct habits of using the voice, so that the tone is almost universally smooth, sweet, and full.

In this branch of the subject is seen mainly the physical development of the lungs, muscles of the throat and face, and of the sense of



hearing. The judgment and attention are also trained to a slight extent by noting the qualities of the sound.

The next point to be considered after quality of the instrument is the skill of the performer. But in the very development of the desired qualities of tone skill is acquired in the control of the voice in respect to its purity, smoothness, and volume. What remains to be learned is the materials of music, intervals, and time, and their representation.

An interval in music produces as distinct and as definite an impression on the auditory nerve center as an object does upon the optic nerve center. To the mind an interval has as separate and distinct an individuality as that of an object. The intervals are concrete; they are so presented to the mind of the child that he learns to look upon them in this light. By careful guidance he soon learns to recognize the simpler intervals and to produce them with his own voice. He is then guided step by step—the greatest care being taken to enable him to comprehend the connection—to a knowledge of the representation of intervals in musical notation. Knowing the intervals themselves as concrete things as well as he would know the same number of objects by sight, having the power to produce them with his own voice at will, comprehending fully their representation, their symbols, by notes in the different keys on the staff, it only needs systematic practice to render him able to sing any combination of intervals in any key at sight.

Great progress has been made in our schools in this respect, except with chromatic intervals, with which little work has yet been done. After systematic work in this direction for two years, the majority of the schools above the third grade can read at sight with ease any intervals in the diatonic scale in any key.

This branch of work calls into action, primarily, the same powers of the child as were exercised in the development of good tone, as the voice is constantly used in the study of intervals. The most direct training, however, is the cultivation of the judgment through the sense of hearing, developing a power of fine discrimination in the relative pitch of sounds. In determining intervals from the representation, the sense of sight is trained, also the memory and judgment. Sustained attention is developed to a remarkable degree in the study of intervals.

To develop the child's mind to a comprehension of time in music, it is necessary to make him feel that it is a distinct kind of motion made up of groups of regularly recurring beats, with accent.

The regularity of the beats can very readily be taught by means of the pendulum, but the accent or stress must be given by the voice.

Many songs and exercises should be sung in which the time is simple, but clearly marked, so that the child may grasp not only the larger movements of time but also the idea of groups of regularly recurring beats with accent before he is shown the representation. The time should be kept exceedingly simple in the exercises which he reads for



the first few years, that the time-feeling may be thoroughly developed until he feels the necessity for exact rhythm in music. Once possessing this feeling, the child will readily overcome the later difficulties in the study of time. These should, of course, be presented in order of their difficulty and at such distances that he may comprehend each fully before studying the next.

The subject has been presented in this way in our schools. As a result, the children do not keep time by means of some outside muscular movement, but by the time-feeling developed in the mind, both tested and guided by the regular swinging of the pendulum. The time kept by the schools is better than when the children beat it themselves, while their understanding of time notation is much broader and more intelligent.

The work was retarded the early part of the year because there was so little supplementary music. The work in the music books and on charts in many grades presents the difficulties in time in such rapid succession that a great amount of supplementary music is absolutely needed to develop the work properly. Without this extra music the study degenerates into the learning of a number of pieces by rote, with no power to sing new material. Fortunately, the last half of the year supplementary music, bridging the difficulties in time, was supplied. The results were wonderful, even to those who had fully expected great improvements.

Toward the end of the year schools often sang at sight page after page of music, in all the usual time-forms and in all keys. It was most encouraging.

But the supplementary material now on hand will be profitable work only for the lower grades next year, all the schools having worked forward to such an extent. It is to be hoped that more supplementary matter, and that of a higher character, may be procured at the beginning of the next school year.

#### COOKING LABORATORIES.

Miss S. E. Jacobs, directress of cooking, reports details respecting the schools in that branch of work as follows:

Force school, Massachusetts avenue, between Seventeenth and Eighteenth streets northwest:

Number of pupils taught.....	202
From the Force, Adams, Grant, and Weightman schools.	
Cost of supplies.....	\$83. 85
Teacher, Miss E. S. Jacobs.	

Memorial Church, corner of Fourteenth and N streets northwest:

Number of pupils taught.....	201
From the Berret, Dennison, Phelps, and Franklin schools.	
Cost of supplies.....	\$85. 21
Teacher, Mrs. A. C. Pollock.	

# 862 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

## 609 O street, northwest:

Number of pupils taught .....	204
From the Henry, Morse, and Polk schools.	
Cost of supplies .....	\$64. 21
Teacher, Miss Madge Keogh.	

## Seaton school, I street, between Second and Third streets northwest:

Number of pupils taught .....	245
From the Seaton and Webster schools.	
Cost of supplies .....	\$80. 07
Teacher, Miss A. G. Horton.	

## Gales school, corner of Massachusetts avenue and First street northwest:

Number of pupils taught .....	246
From the Twining, Blake, Arthur, and Blair schools.	
Cost of supplies .....	\$88. 71
Teacher, Miss Eva Walker.	

## Peabody annex, Sixth, between B and C streets northeast:

Number of pupils taught .....	227
From the Peabody, Carberry, Maury, Madison, and Taylor schools.	
Cost of supplies .....	\$106. 28
Teacher, Miss M. Merillat.	

## Wallach school, Eighth and Pennsylvania avenue southeast:

Number of pupils taught .....	228
From the Wallach, Tyler, Towers, and Lenox schools.	
Cost of supplies .....	\$93. 94
Teacher, Miss M. A. Douglas.	

## Jefferson school, corner Sixth and D streets southwest:

Number of pupils taught .....	212
From the Jefferson, Bradley, and Smallwood schools.	
Cost of supplies .....	\$59. 84
Teacher, Miss M. Davis.	

## Addison school, P street, between Twenty-sixth and Twenty-seventh streets northwest:

Number of pupils taught .....	175
From the Curtis, Addison, and Jackson schools:	
Cost of supplies .....	\$85. 21
Teacher, Miss F. AtLee.	

## County schools:

Number of pupils taught .....	199
From the Mount Pleasant, Monroe, Mott, Van Buren, Hillsdale, Benning, and Benning Road schools:	
Cost of supplies .....	\$96. 44
Teacher, Miss A. C. Jacobs.	

## RECAPITULATION.

Number of pupils taught .....	2, 149
Cost of supplies .....	\$843. 76
Cost of plant of one cooking laboratory .....	\$225. 00

Mrs. E. C. Weaver, directress of sewing, makes the following detailed report:

Mrs. E. C. Weaver taught in the Franklin, Dennison, Wallach, and Tyler schools:

Number of pupils instructed .....	109
-----------------------------------	-----

Miss I. I. Solomons taught in the Franklin, Webster, Twining, Polk, Henry, Force, and Adams schools:	
Number of pupils instructed .....	863
Miss M. C. Henry taught in the Seaton, Grant, Force, Berret, Dennison, Harrison, and Memorial Church schools:	
Number of pupils instructed .....	870
Miss E. R. Thornton taught in the Blake, Weightman, Gales, Arthur, Morse, Phelps, and Amidon schools.	
Number of pupils instructed .....	750
Mrs. M. W. Cate taught in the Mount Pleasant, Monroe, Mott, Phelps, Wallach, Towers, and Lenox schools.	
Number of pupils instructed .....	526
Mrs. S. M. Davidson taught in the Peabody, Carberry, Benning, Benning Road, Greenleaf, Smallwood, Maury, Peabody annex, Taylor, Madison, and Blair schools.	
Number of pupils instructed .....	783
Mrs. A. L. Norris taught in the Jefferson, Amidon, Bradley, and Smallwood schools.	
Number of pupils instructed .....	367
Mrs. Stanton taught in the Jackson, Threlkeld, Addison, Tenlytown, High Street, Corcoran, Curtis, Potomac, and Bradley schools.	
Number of pupils instructed .....	602
Miss Kate Graham taught in the Cranch, Tyler, Hillsdale, Van Buren, McCormick, Lenox, Brent, Wallach, and Birney schools.	
Number of pupils instructed .....	697

#### CUTTING AND FITTING LABORATORIES (SIXTH GRADE PUPILS).

Wallach school, Eighth and Pennsylvania avenue, SE.: Number of pupils taught, 156; received from the Wallach, Brent, Towers, Lenox and Tyler schools. Mrs. E. C. Weaver, Mrs. M. W. Cate, teachers.

494 Maryland avenue, SW.: Number of pupils taught, 161; received from the Jefferson, Amidon Bradley and Smallwood schools. Mrs. A. L. Norris, teacher.

Total number of pupils instructed, 5,884.

#### MACHINE-TOOL LABORATORIES.

Mr. J. A. Chamberlain, director of manual training, makes the following detailed report:

High school machine-tool laboratory, Nos. 624 and 626 O street NW: Number of pupils taught, second year boys, forging, 37; third year boys, machine work, 24; total, 71; received from the central, business, and eastern high schools. Cost of supplies, \$335.81. Mr. A. I. Gardner, teacher.

Wood-turning laboratory; location as above. Number of boys taught, 115; received from the central and business high schools; cost of supplies and new tools, \$112.45.

For twelve weeks prior to taking up wood-turning these boys were given a course in drafting in a room fitted for the purpose. Cost of new instruments and supplies, \$66.47.



## BENCH LABORATORIES.

Location as above, second story. Number of pupils taught, seventh grade, 171; eighth grade, 165; total, 336; received from the Abbot, Henry, Phelps, Morse, Polk, Webster, Thomson, Dennison, Monroe, Brookland, and Brightwood schools. Cost of supplies, \$415.19. Messrs. P. L. O'Brien and R. T. Pumphrey, teachers.

Twining school, Third street, between N and O streets NW.: Number of pupils taught, seventh grade, 70; eighth grade, 45; total, 115; received from the Blake, Blair, Gales, and Twining schools. Cost of supplies, \$292.63. Mr. Augustine Reed, teacher.

Gales school, corner First and Massachusetts avenue NW.: Number of pupils taught, seventh grade, 46; eighth grade, 59; total, 105; received from the Blake, Blair, Madison, Arthur, and Gales schools. Cost of establishing shop, \$413.12. Cost of supplies, \$243.43. Mr. J. A. Montgomery, teacher.

Peabody annex, Sixth, between B and C streets SE.: Number of pupils taught, seventh grade, 69; eighth grade, 57; total, 126; received from the Carberry, Maury, and Peabody schools. Cost of supplies, \$217.56. Mr. W. H. Cromeline, teacher.

Seventh and G streets SE.: Number of pupils taught, seventh grade, 35; eighth grade, 80; eastern high school (first year), 46; total, 161; received from the Lenox, Tyler, Brent, Wallach, and the Eastern high schools. Cost of supplies, \$227.27. Mr. J. A. Degges, teacher.

Seventh and G streets SE.: Number of pupils taught, seventh grade, 80; received from the Wallach, Lennox, Towers, and Tyler schools. Cost of establishing new shop, \$413.12. Cost of supplies, \$226.93. This school was open three days in each week. Mr. W. H. Cromeline, teacher.

Jefferson school, corner Sixth and D streets SW.: Number of pupils taught, seventh grade, 98; eighth grade, 65; total, 163; received from the Bradley, Smallwood, and Jefferson schools. Cost of supplies, \$237.02. Mr. E. J. Dakin, teacher.

Franklin school, corner Thirteenth and K streets NW.: Number of pupils taught, seventh grade, 123; eighth grade, 72; total, 195; received from the Berret, Dennison, Thomson, and Franklin schools. Cost of supplies, \$175.34. Mr. W. R. Sheid, teacher.

Force school, Massachusetts avenue, between Seventeenth and Eighteenth streets NW.: Number of pupils taught, seventh grade, 115; eighth grade, 106; total, 221; received from the Adams, Grant, Weightman, Force, and Mt. Pleasant schools. Cost of supplies, \$224.10. Mr. Francis Schweinhaut, teacher.

Curtis school, O street, between Twenty-sixth and Twenty-seventh streets NW.: Number of pupils taught, seventh grade, 34; eighth grade, 82; western high school (first year), 32; total, 148; received from the Western high school, Jackson, Addison, and Curtis schools. Cost of supplies, \$175.16. Mr. T. W. Fuller, teacher.

*County schools—Number of pupils taught and cost of supplies.*

School.	Pupils taught.	Cost of supplies.
Van Buren and annex .....	33	\$109.27
Benning .....	14	92.57
Benning Road (colored).....	11	82.18
Mott.....	24	94.59
Hillsdale.....	23	80.92

Classes were received from the Van Buren and annex, Benning, Benning Road, Mott, and Hillsdale schools, Messrs. Edward Baldwin and W. H. Cromeline teachers. Number taught by grades: seventh grade, 85; eighth grade, 24; total 109. Each school was open two days in each week.

Total number of boys in manual training schools, 1,836.

#### CONCLUSION.

A reasonably good view of our schools and of the work they are trying to accomplish may be had by reading the reports of my associates, the heads of divisions and departments, herewith appended. To these I respectfully but earnestly call your close attention.

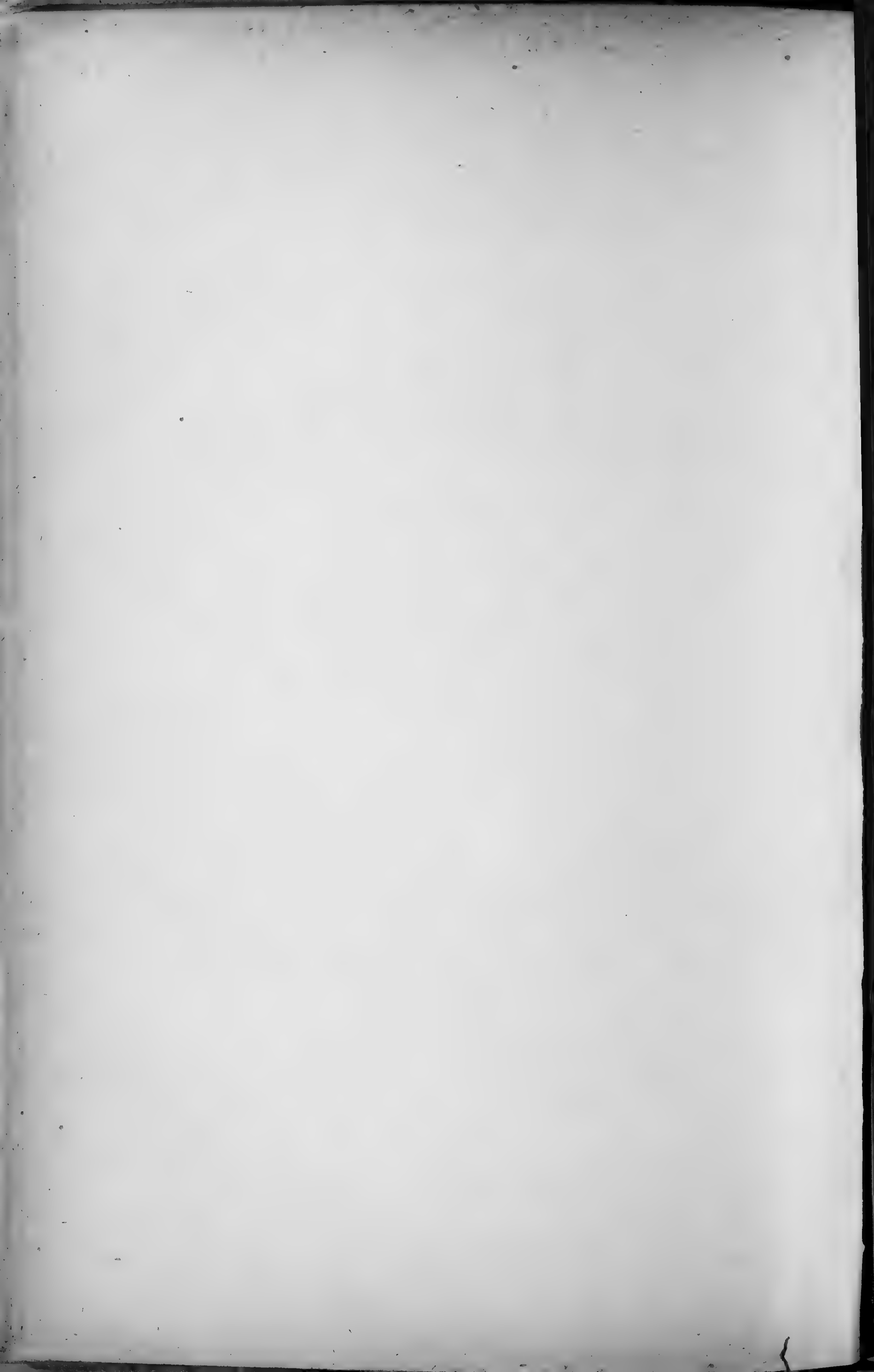
On the whole the past year has been a fairly successful one, I think.

I have the honor to be, your obedient servant,

W. B. POWELL,  
*Superintendent.*

OCTOBER 10, 1892.

H. Ex. 1, pt. 7—55





## SPECIAL REPORTS.

### FIRST DIVISION.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit herewith a brief report on the condition of the schools of the first division for the school year ending this month:

TABLE I.—*Showing distribution of schools by buildings.*

Schools.	Eighth grade.	Seventh grade.	Sixth grade.	Fifth grade.	Fourth grade.	Third grade.	Second grade.	First grade.	Total.	School rooms.	No. of teachers.
Franklin .....	2	1	1	1	1	1	2	2	11	*11	7
Thomson .....	1	1	1	1	1	1			6	6	6
Berret .....	1	1	1	2	1	1	1	1	9	9	9
Dennison .....	2	2	1	1	1	1	1	1	10	11	6
Phelps .....	1	1	1	1	1	1	2	2	10	8	10
Harrison .....			1	1	1	1	1	1	6	8	6
Adams .....	1	1	1	2	1	1	1	1	9	8	9
Force .....	2	2	1	2	1	1	1	1	11	11	11
Fourteenth and N streets .....			1						1	1	1
Webster .....	1								1	1	1
Total .....	11	9	9	11	8	8	9	9	74	74	†66

\*Not including rooms occupied by Business high school.

†Not including training teachers in charge of eight schools.

A number of changes are noticeable in the distribution of the schools of this division. By placing the Business high school in the Franklin building six of the boys' schools formerly in the Franklin were forced into less agreeable quarters in the Thomson. For the same reason it was found necessary to accommodate an eighth-grade girls' school in the Webster. These changes, however, although causing some inconvenience and hardship to both pupils and teachers, did not apparently lessen the attendance or in any marked degree lead to poorer schools or poorer discipline.

The addition of the Harrison building to the list of buildings in this division made it possible so to rearrange the schools of the neighborhood that for the first time in my recollection there were no classes having less than their full allowance of time,

Although it will be seen that the number of school rooms in the different buildings equaled the number of schools, it was not possible, without serious and what seemed unwarrantable inconvenience to pupils, to do away with all afternoon first and second grade schools in the more crowded sections of the division, or to avoid leaving a few rooms unoccupied in localities where the attendance was insufficient to fill them. For the same reasons it did not seem wise to force pupils from the neighborhood of the Franklin and Thomson buildings into the available rooms at the Harrison, in the extreme northern limit of the district. Hence it seemed best to again rent one of the rooms at Fourteenth and N streets. It is to be hoped that when the schools of this neighborhood are again grouped in the Franklin, there may be no longer any reason for using these rooms.

TABLE II.—*Showing condition of buildings.*

Building.	How heated.	Light.	Ventilation.	Water-closets.	Play rooms.	Yards.	Owned or rented.
Franklin .....	Steam .....	Excellent.	Good .....	Good .....	Excellent.	Excellent.	Owned.
Adams .....	Furnace ..	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.	Owned.
Dennison .....	Steam .....	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.	Owned.
Force .....	Steam .....	Excellent.	Good .....	Good .....	Excellent.	Excellent.	Owned.
Berret .....	Furnace ..	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.	Owned.
Phelps .....	Furnace ..	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.	Owned.
Fourteenth and N streets.	Stoves .....	Poor .....	Poor .....	Fair .....	None .....	None .....	Rented.
Harrison .....	Furnace ..	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.	Owned.
Thomson .....	Stoves and furnace.	Fair .....	Fair .....	Fair .....	Poor .....	None .....	Owned.

In view of the probability that neither the Thomson nor the N street rooms will be required during the coming year, the unfavorable report of these buildings, shown in the above tables, need not be emphasized by further comment.

It will be seen that all other buildings are in satisfactory sanitary condition.

The schools have been generally well cared for by the janitors, who deserve commendation for faithful and efficient work. In bestowing this praise I have in mind a standard of cleanliness and neatness that by common consent seems good enough for schools and other buildings of like character. Under existing conditions, perhaps, no more can be done than is done. But I have no hesitation in saying that in comparison with most of the houses from which our children come, our schoolrooms are *not* in all respects as carefully cared for as they should be.

In the limited time afforded after school hours, and with insufficient and oftentimes incompetent help, it may not be possible to secure better results; but it would indeed be most pleasing if, in point of cleanliness and neatness at least, our schoolrooms, the homes of the

children during much of the day, could compare more favorably with their other homes. Still, as schoolrooms go, our buildings are in excellent condition. Since a previous report in which some criticisms of a similar nature were made, a very decided improvement has followed in some buildings, and it is needless to say that the good effects can be readily measured. If, by repeating a recommendation made, in the report referred to, that Congress be asked to more liberally recompense the janitors so that more and better help may be had, I can emphasize my belief in the wisdom and justice of such an increase, I most sincerely plead in their behalf again.

TABLE III.—*Showing afternoon schools.*

Schools.	Afternoon schools.	Grade.
Franklin .....	1	1 or 2
Phelps .....	2	1 or 2
Adams .....	1	1 or 2
Total .....	4	

For the first time since my connection with the schools, there were no classes above the second grade on less than full time. It will be seen, too, that there are fewer afternoon schools. The reason for the existence of any afternoon schools is to be found in the overcrowded condition of certain buildings rather than in a lack of school accommodations in the division as a whole. As before stated, it seemed best to establish such schools in certain localities when the alternative was to force pupils to buildings inconveniently situated. It will be my aim in reorganizing in September to still further reduce the number of afternoon schools.

TABLE IV.—*Showing attendance, tardiness, and absence of teachers.*

	Average enrollment.	Aggregate enrollment.	Tardiness of teachers.	Tardiness of pupils.	Absence of teachers; substitute service.	Percentage of attendance.
September .....	2,786.3	2,964	3	92	5.5	97.0
October .....	3,003.4	3,181	14	393	24.5	93.9
November .....	3,097	3,192	15	417	16	92.8
December .....	3,035.3	3,047	18	408	20	90.5
January .....	2,901.5	3,201	29	608	41	87.6
February .....	3,017.8	3,125	21	459	26.5	91.3
March .....	2,946	3,094	38	522	46	90.0
April .....	2,916	3,020	17	462	47	90.4
May .....	2,797.7	2,908	17	484	52	90.7
June .....	2,576	2,718	16	238	36	91.4
Total .....			188	4,143	314.5	....., .....

The foregoing table of statistics suggests comment in only a few particulars. By comparison with reports of last year, it will be seen that



the total number of cases of tardiness is somewhat smaller, the average number of cases per school being 56. The percentage of attendance is about the same as in previous years. While in both particulars the schools of the first division suffer by comparison with some other sections of the city, I believe, notwithstanding this, that the figures represent normal conditions.

There is ground for criticising teachers on the score of punctuality, although in justice to the greater number it should be said that a few are responsible for the large total.

During the year the absence of teachers aggregated 314.5 days, a reduction of 57 days. As this absence was caused invariably by sickness—the prolonged absence of two teachers making the aggregate much larger than it would otherwise have been—there is certainly no reason for criticism. The work of the substitutes employed to do the work of absent teachers has been much more satisfactory than usual.

#### SCHOOL WORK.

The very frequent and full reports made to you at the weekly meetings of supervisors in your office, make it entirely unnecessary to discuss here in detail the work done in the different grades. Such a report, too, would doubtless involve the repetition of much that has been said in other reports. Broadly speaking, the teachers have endeavored to keep to the high standard already reached in some lines of work, to correct the faults discovered in the work of the previous year, to strengthen the weak places wherever found, and to carry out along new lines plans and suggestions made by you, by the supervisors, and by the special teachers.

It is no exaggeration of the facts to say that in their efforts the majority of the teachers have been eminently successful, and have taken a decided step in advance in the direction of broader, more intelligent work. Unfortunately this can not be said of all. In so large a company of teachers there will always be found a few, I fear, whose interest is determined by the size of the salaries paid, who limit their work and responsibility to the teaching hours of school days, and who are contented if only moderately successful. The number of such teachers is fortunately very small. The majority, on the contrary, are quick to respond to any suggestion or help from any source, and indefatigable in their efforts to prepare themselves by study and observation to do always better work. Too much praise can not be given those who have ideals, and who are straining every nerve to realize them, who appreciate the responsibilities they have assumed, and who are faithful to their trust at all times and in all ways.

Perhaps the most marked general improvement is noticeable in the primary grades. The work in these grades has been the especial care of Miss Denney, and the excellent results reached are very largely due to her wise and very efficient supervision.

It is gratifying, too, to be able to report of the work in music in all grades a very decided advance. We are beginning to realize in the pure sweet tones of the children and in their ability to read music readily at sight the results of the excellent teaching of the past few years.

Of the regular work of the grade it will be sufficient to mention only lines of work that have been newly undertaken, or work that has been especially emphasized, for various reasons, during the year.

In all of the higher grades a considerable amount of time has been devoted to the study and analysis of the English sentence, and to a more formal study of technical grammar. Any deficiency that may have existed in this direction as a natural result of a relatively greater emphasis given to the making of English was quickly made good.

A new and very valuable feature of the eighth-grade work in number was the careful outlining and reviewing of the work of all grades.

The science work which forms the basis of the course in geography in the third and fourth grades, was not as well done as we are justified in believing it will be during the coming year. A good beginning was nevertheless made.

In other branches there have been no wide departures from plans followed in previous years. The results of oral and written tests show that the work has been generally well done.

In conclusion, I wish to thank the teachers of this division for their uniform courtesy, and for their earnest coöperation in all the work of the year. I wish, too, to acknowledge my indebtedness to you, and to Mr. J. J. Darlington, trustee of the first division, for your cordial and efficient help.

Very respectfully,

N. D. CRAM,  
*Superrising Principal.*

Mr. W. B. POWELL.

## SECOND DIVISION A.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit the following report on the condition of the schools of division 2 A, for the year 1891-'92:

### *Number of schools.*

First grade.....	8	Sixth grade .....	8
Second grade.....	8	Seventh grade.....	8
Third grade .....	8	Eighth grade.....	7
Fourth grade.....	8		
Fifth grade .....	8	Total.....	63

Four new schools, one each of the first, second, seventh, and eighth grades, have been organized and one fifth-grade school discontinued, a net increase of three schools.

TABLE I.—*Showing the location of schools by grades.*

Buildings.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	No. of schools.	No. of rooms.
Abbot .....	1	1	1	1	1	2	1	1	9	9
Seaton .....	1	1	1	1	1	1	2	2	10	*12
Morse .....	2	2	1	1	1	1	1	1	10	8
Henry .....		1	3	2	2	1	2	1	12	12
Polk .....	2	1		1	1	2	1	1	9	8
Webster .....	2	2	2	2	2	1	1	1	13	†12
Total .....	8	8	8	8	8	8	8	7	63	61

\*One room used for cooking school.

†One room loaned to first division.

TABLE II.—*Showing location and grade of half-day schools.*

Buildings.	First grade.	Second grade.	Total.
Morse .....	2	2	4
Polk .....	2		2
Webster .....	2	2	4
Total .....	6	4	10

The above tables represent the conditions since the completion and occupation of the new eight-room building, the Polk, about the middle of January, when the rented building, 628 O street N. W., was abandoned and the congested condition of the Henry and Morse buildings, in which all the lower grades of schools, including the fourth, had been stinted to a half day each, was measurably relieved. Our schools occupy no rented rooms at present. Six first-grade and four second-grade schools are on half time for want of five conveniently located rooms, while the northward drift of population has left vacant room in the Seaton building. It may be found expedient, in the near future, to adapt the Seaton to the use of both sexes, as may be done at no great expense.

#### CONDITION OF SCHOOL BUILDINGS.

The present school buildings are all well lighted and well heated; the closets, except in the case of the Seaton, are ample and generally in good sanitary condition, and the ventilation for the most part is good.

I wish again to emphasize the need of repairs in and upon the older buildings, and especially the Seaton. After twenty-one years of utter neglect, a thorough renovation is needed inside and outside with paint, oil, and kalsomine, to render the venerable building once more respectable. It would appear that the lessening demand for new buildings renders possible a largely increased appropriation for much needed repairs and improvements on those existing structures which are in bad condition through long use, and, in some instances, through long neglect, compelled by want of adequate appropriations.



## CARE OF SCHOOL BUILDINGS.

The school buildings have been well cared for. There has been little or no cause of complaint with regard to the heating, cleanliness, or general care of school rooms, closets, or school yards; nor have the neighbors complained of trespass or undue boisterousness on the part of the pupils. So far as I can judge, due care and economy have been exercised in the use of fuel and all other supplies. The janitor's ordinary duties demand constant care and good judgment; he is held accountable for the efficiency and honesty of his helpers; his relations to the pupils in the play room and school yard, where he stands virtually in place of the teacher, are both delicate and responsible, requiring a judicious mixture of tact and firmness. It gives me pleasure to report that the present janitors have, as a rule, shown themselves both competent and efficient in their varied duties.

## ATTENDANCE.

The total enrollment for October, the largest for the year, was 2,972 pupils, which gives an average of 47.1 per teacher. The average number of pupils per teacher for the entire year is 46.7, as shown by the total enrollment, and 42.6 on the basis of the average enrollment. Reference to former reports would show that the average number of pupils assigned to a teacher has been somewhat reduced this year. This is no doubt a most desirable condition. It is much to be hoped that the policy of the authorities will be so wise and liberal in this regard as not to compel us to any steps backward. The teacher can not adequately respond to the just and increasing demand for the recognition of the needs of the individual pupil until her class is still made smaller.

The average per cent of attendance for the year was 92.5 for the pupils, or practically the same as last year, and for the teacher 98.5, which is a decided and gratifying improvement over that of last year. As for tardiness, while the pupils' record shows fair improvement, there was in the case of the teachers a reduction of nearly 40 per cent in the number of cases as compared with the preceding year.

The record of attendance as shown is, I think, fairly good. Local and individual instances of laxity and indifference there always will be. These it is the work of the teacher and the supervisor to correct by all judicious measures; but any general concerted attempt to stimulate and increase attendance might easily cause more evils than it would cure.

The question is as urgent and as perplexing as heretofore. The number of habitual truants is small; about twenty-five are reported from all the schools in the division this year; but the smallness of the total gives no hint of the trouble and vexation they bring teachers and parents, nor of their mischievous influence on their comrades in school. By the earnest and persistent coöperation of parents and teachers some of them are reclaimed, or at least held in school, but more of them

are at length eliminated, to their detriment, perhaps, but to the manifest advantage of those who remain.

I heartily indorse the recommendation of last year's report that special officers and special schools be provided for habitual truants.

#### SCHOOL WORK.

Of the school work of the year but little can be said that has not been anticipated in former reports.

The addition of the normal series to the course in reading has proved a success in the lower grades, as in others, the subject-matter being especially adapted to the course of study, and the amount of reading matter in the two series proving a decided advantage.

In the upper grades, where reading is mainly for information, the prescribed text-books have been but little used and rarely is any attempt made to teach reading as a means of conveying information in an intelligible and pleasing manner to others. Besides the considerable amount of reading in connection with the course of study, many of the sixth, seventh, and eighth grade classes have read, with more or less profit, selections from Irving, Longfellow, Scott, and other classic writers.

In language a special feature has been the analysis of sentences, which preceded the work in technical grammar, and in which a good degree of proficiency was attained.

In composition the work of the fifth grade was made more definite and profitable by the use of an outline specially prepared for the grade.

In the seventh grade paragraph writing was made a speciality.

As heretofore, composition has held a prominent place in the work of all the grades. A special point has been to make pupils more self-helpful, to secure more of individuality both in matter and in forms of expression. To this end pupils have prepared their own outlines whenever practicable, exercises have been shorter and more frequent, and less time has been given to preliminary development by the teacher, but more for original composing by the pupil.

The teaching of number has been satisfactory in many respects, but a series of tests made in the upper grades developed some points of weakness. These tests, which included a brief review both of the work of the year and that of previous years, indicated much deficiency in knowledge of definitions and principles and a too prevalent lack of that facility and accuracy in processes and results which come only as the result of intelligent and persistent practice. To a certain extent these results were chargeable to neglect to review properly the work of the preceding grades, whereby the acquisitions of previous years had apparently been lost. As special care has since been given to the points wherein weakness was disclosed, it may fairly be presumed that the result has been a distinct advance in this branch of study as compared with last year.

Of the science work of the fourth grade it may be said that a good beginning, at least, has been made, and that the zeal shown by the teachers in collecting illustrative material and devising methods of presenting this new subject to their classes give promise of excellent results. Several helpful illustrative class exercises have been given on topics connected with this subject in the presence of the teachers of the grade.

Of the other branches of study I will not speak in detail, though much might be said in commendation of the work done in each of them.

In surveying the work of the year it may be justly said that the teachers have labored, perhaps not more earnestly nor more faithfully than in the past, but with broader knowledge of the subjects taught and a clearer appreciation of the results sought to be attained in teaching them, and that as a consequence the year has been more than usually profitable.

#### FREE TEXT-BOOKS.

The introduction of free text-books in the first four grades has been a notable incident of the year. The new plan has worked smoothly. The rules regulating the use of books were so well enforced that they were returned at the close of the schools with but trifling loss or damage.

In conclusion I wish to make due acknowledgment to the teachers of the division, who have largely made the schools what they are, to the local trustee, Mr. L. C. Wood, and to the superintendent for their efficient support and coöperation.

Very respectfully,

Mr. W. B. POWELL.

N. P. GAGE,  
*Supervising Principal.*

#### SECOND DIVISION, B.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit a report of the schools under my supervision for the year now ended.

The following table shows the buildings, the number of rooms and schools in each, and the number of schools in this division at the close of the year:

Buildings.	Number of rooms.	Number of schools.	Rooms used by two schools.	Buildings.	Number of rooms.	Number of schools.	Rooms used by two schools.
Gales .....	12	*13	1	Taylor .....	8	8	.....
Arthur .....	8	10	2	Madison .....	8	8	.....
Blake .....	8	9	1	Hamilton .....	†4	3	.....
Twining .....	8	†9	.....	Total .....	64	68	4
Blair .....	8	8	.....				

\*Including one manual-training and one cooking school.

† Including one manual-training school in a basement room.

‡ One room unfinished.



The schools were distributed as shown in the table given below:

Buildings.	Eighth grade.	Seventh grade.	Sixth grade.	Fifth grade.	Fourth grade.	Third grade.	Second grade.	First grade.	Total.
Gales .....	1	1	2	2	2	1	1	1	11
Arthur .....	1	1	1	1	1	1	2	2	10
Blake.....	1	1	1	1	1	2	1	1	9
Twining .....	1	1	1	1	1	1	1	1	8
Blair.....	1		1	1	1	1	1	2	8
Taylor*.....		1	1	1	2	1	1	1	8
Madison .....		1	1	1		1	2	2	8
Hamilton .....			1		1		1		3
Total .....	5	6	9	8	9	8	10	10	66

\* Occupied for the first time in April, 1892.

The number of schools is sixty-five, an increase of four over the number of the preceding year. The new schools were organized in the first, second, fourth, and sixth grades. Three of these were in the eastern part of the division, and the other, a combination of the first and second grades, was placed in the Hamilton School.

A new eight-room building, the Taylor School, located on Seventh street, near G street, northeast, was opened for school use on the 13th of April. This event had been eagerly awaited by teachers and pupils, as it would permit the withdrawal of eight schools from the Blair and the Madison and so afford a much-needed relief to those overcrowded schools. All of the rooms of the Taylor were at once occupied, and, for the remainder of the year, each of the schools of this locality enjoyed the possession of a separate room.

In September it was necessary in a number of cases to place two schools, in one room. These one session, or half-day, schools are shown in the following table:

Building.	Number of half-day schools.	Grade.	Number above second grade.
Gales .....	2	First, second.....	
Arthur .....	4	First, second.....	
Blake.....	2	First, second.....	
Blair.....	6	First, second, third, fourth.....	2
Madison .....	8	First, second, third, fourth.....	3
Total .....	22		5

Before leaving this subject a few words should be said concerning the schools of the eastern part of the division. As the foregoing tables show, there have been twenty-four schools in that section of the city. During most of the year, they were located in two eight-room buildings, making necessary fourteen half-day schools. Five of these were of grades higher than the second grade.

It is undesirable to divide the occupancy of a schoolroom between two schools of the first or second grade, however short their daily session may be; it is hardly less than unendurable when they are of grades higher than the second. Much credit is, therefore, due the teachers and pupils of these schools for their admirable efforts to counterbalance the disadvantages of a short session and of a joint occupancy of school rooms by a greater earnestness in their application to their work.

While the year closes with a single school in each of the rooms of these buildings, the beginning of another will show a need of several half-day schools. Three new schools were formed there during the year just ended, six new schools will, in all probability, be required for the following year, making a total of thirty schools for three eight-room buildings. At the present rate of growth, therefore, another year will make increased accommodations imperative.

#### ATTENDANCE.

The largest attendance was in October, when the total enrollment was 3,232 pupils. The smallest attendance occurred in June, the total enrollment being 2,737. This decrease may be explained in part by two facts: First, pupils leave school to go to work during the winter months, and second, others leave during the last six weeks to obtain summer employment. The former represents a permanent loss, the latter a transient loss. The enrollment for April was 2,977, being 255 less than that of October and 240 larger than that of June. The decrease in attendance in the months of May and June was nearly as great as that for all the months from October to April. I believe the latter class of absenteeism can be, and should be, largely reduced. The pupils who belong to it are in most cases those who can not afford to lose their school time. In addition to the actual loss of school time, there must be considered the demoralization of the power and habit of study brought about by the too long period of their disuse.

The average attendance for the year was 91.1 per cent, but for the last four months the per cent was even lower. It seems to me that after liberal allowance for proper and necessary absence this attendance is not so good as it should be. It should be said, however, that this low average is due mainly to a few schools where the absence has been greater because of local reasons. More care may properly be given to this subject by teachers whose schools have been deficient in this respect.

The number of cases of tardiness reported during the year was 3,874, an average of 59 to a school, or somewhat more than one case of tardiness per pupil during the year.

The remarks above made regarding absence apply with equal force to the matter of tardiness. Most of the schools need not be criticised in this respect.

## DISCIPLINE.

The old maxim that the teacher makes the school is nowhere more plainly exemplified than in that combination of conditions which is called good order. Given a cheerful, industrious, methodical teacher, a well-disciplined school will be the result. If any one of these qualities be lacking, a corresponding loss in the school will be evident. Of the 65 schools of this division the larger number have been so well governed that they have seemed to be self-governed. There have been, however, a few disorderly schools and a few in which there has been a lack of tact in governing.

The number of suspensions was somewhat larger than for the preceding year, but none were of so serious a nature as to result in dismissal.

## INDUSTRIAL SCHOOLS.

Two new industrial schools were provided in September, which, with the one already in use in the Twining, have given ample opportunity to the pupils of the seventh and eighth grades to receive instruction in manual training and cookery.

To accommodate these new schools two rooms were taken in the Gales building. Being well lighted and well ventilated, the new carpenter shop and the new kitchen were equal in sanitary conditions and attractiveness to the other schools of the division. Under such circumstances the most favorable results could reasonably be expected. I am gratified to be able to state that these schools have been of a high order of merit. The classes in carpentry and cooking have been well sustained and the attendance has been good. No diminution in the interest of the pupils appeared during the year, and the teachers in charge have reported from time to time that the pupils were doing better work than had been done during the previous year.

On account of the long distance which the boys of the eastern part of the division travel in going to the carpenter shop, I would suggest that the school in the Twining be transferred to the Blair.

## THE COURSE OF STUDY.

The teachers have been guided in their work by the course of study and by instructions received in grade meetings. There have been no marked departures in these respects from the lines followed in previous years. The work has corresponded very generally, therefore, with that of last year. Greater definiteness of purpose has characterized much of the teaching. Earnestness and fidelity have marked the work of most of the teachers.

Responsive to suggestion, willing to labor unceasingly for the best interest of their pupils, anxious to succeed, the teachers have done their year's work in a manner deserving generous commendation. That



there have been a few exceptions to this general statement is not a cause for wonder and does not alter the rule. Such cases have been reported to you whenever necessary. I think there is encouragement for the belief that there will be an improvement in most instances during the coming year.

My thanks are due, and are hereby extended, to the teachers of this division for the cordial spirit manifested towards me in all the work of the year.

Permit me the pleasure of expressing my appreciation of your courtesy and consideration in all our relations.

I wish, also, to acknowledge my indebtedness to Mr. L. C. Wood and to Mr. J. W. Whelpley, trustees of this division, for their interest in the schools and for the support which they have constantly given.

Very respectfully,

C. S. CLARK,  
*Supervising Principal.*

Mr. W. B. POWELL,  
*Superintendent of Public Schools.*

### THIRD DIVISION.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit a report of the condition of the schools of the third division for the year ending June 30, 1892:

TABLE I.—*Showing locations of schools by grades.*

Buildings.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	No. of schools.	No. of rooms.
Peabody .....	2				2	3	1	2	10	*8
Peabody Annex .....			1	1					2	2
Carberry .....	1	3	2	2	1		2		11	8
Maury .....	1	1	1	1	1	1	1	1	8	8
Towers .....	2	2	1	1	1	1	1	1	10	8
Wallach .....			1	2	2	2	2	1	10	†10
Brent .....	1	2	2	1	2	1		1	10	8
Lenox .....	1	1	1	1	2	1	1	1	9	8
McCormick .....	2	1	1	1					5	4
Total .....	10	10	10	10	11	9	8	7	75	64

\*Four schoolrooms were occupied by the Eastern High School.

†One schoolroom was occupied by a cooking school and 1 by a sewing work-shop.

In September, 1891, the Cranch and Tyler schools, with fifteen teachers, were transferred to the supervision of Mr. J. T. Freeman, sixth division B.

New schools were created as follows: An eighth grade in the Brent; a seventh in the Carberry, and a sixth in the Wallach,

## DISCIPLINE.

The old maxim that the teacher makes the school is nowhere more plainly exemplified than in that combination of conditions which is called good order. Given a cheerful, industrious, methodical teacher, a well-disciplined school will be the result. If any one of these qualities be lacking, a corresponding loss in the school will be evident. Of the 65 schools of this division the larger number have been so well governed that they have seemed to be self-governed. There have been, however, a few disorderly schools and a few in which there has been a lack of tact in governing.

The number of suspensions was somewhat larger than for the preceding year, but none were of so serious a nature as to result in dismissal.

## INDUSTRIAL SCHOOLS.

Two new industrial schools were provided in September, which, with the one already in use in the Twining, have given ample opportunity to the pupils of the seventh and eighth grades to receive instruction in manual training and cookery.

To accommodate these new schools two rooms were taken in the Gales building. Being well lighted and well ventilated, the new carpenter shop and the new kitchen were equal in sanitary conditions and attractiveness to the other schools of the division. Under such circumstances the most favorable results could reasonably be expected. I am gratified to be able to state that these schools have been of a high order of merit. The classes in carpentry and cooking have been well sustained and the attendance has been good. No diminution in the interest of the pupils appeared during the year, and the teachers in charge have reported from time to time that the pupils were doing better work than had been done during the previous year.

On account of the long distance which the boys of the eastern part of the division travel in going to the carpenter shop, I would suggest that the school in the Twining be transferred to the Blair.

## THE COURSE OF STUDY.

The teachers have been guided in their work by the course of study and by instructions received in grade meetings. There have been no marked departures in these respects from the lines followed in previous years. The work has corresponded very generally, therefore, with that of last year. Greater definiteness of purpose has characterized much of the teaching. Earnestness and fidelity have marked the work of most of the teachers.

Responsive to suggestion, willing to labor unceasingly for the best interest of their pupils, anxious to succeed, the teachers have done their year's work in a manner deserving generous commendation. That

there have been a few exceptions to this general statement is not a cause for wonder and does not alter the rule. Such cases have been reported to you whenever necessary. I think there is encouragement for the belief that there will be an improvement in most instances during the coming year.

My thanks are due, and are hereby extended, to the teachers of this division for the cordial spirit manifested towards me in all the work of the year.

Permit me the pleasure of expressing my appreciation of your courtesy and consideration in all our relations.

I wish, also, to acknowledge my indebtedness to Mr. L. C. Wood and to Mr. J. W. Whelpley, trustees of this division, for their interest in the schools and for the support which they have constantly given.

Very respectfully,

C. S. CLARK,  
*Supervising Principal.*

Mr. W. B. POWELL,  
*Superintendent of Public Schools.*

### THIRD DIVISION.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit a report of the condition of the schools of the third division for the year ending June 30, 1892:

TABLE I.—*Showing locations of schools by grades.*

Buildings.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	No. of schools.	No. of rooms.
Peabody .....	2				2	3	1	2	10	*8
Peabody Annex .....			1	1					2	2
Carberry .....	1	3	2	2	1		2		11	8
Maury .....	1	1	1	1	1	1	1	1	8	8
Towers .....	2	2	1	1	1	1	1	1	10	8
Wallach .....			1	2	2	2	2	1	10	† 10
Brent .....	1	2	2	1	2	1		1	10	8
Lenox .....	1	1	1	1	2	1	1	1	9	8
McCormick .....	2	1	1	1					5	4
Total .....	10	10	10	10	11	9	2	7	75	64

\* Four schoolrooms were occupied by the Eastern High School.

† One schoolroom was occupied by a cooking school and 1 by a sewing work-shop.

In September, 1891, the Cranch and Tyler schools, with fifteen teachers, were transferred to the supervision of Mr. J. T. Freeman, sixth division B.

New schools were created as follows: An eighth grade in the Brent, a seventh in the Carberry, and a sixth in the Wallach,



The largest enrollment was in October, being 3,746, an average of 49.8 pupils to each teacher.

TABLE II.—*Showing locations and grades of half-day schools.*

Building.	First grade.	Second grade.	Third grade.	Total.
Peabody .....	2			2
Carberry .....	1	3	2	6
Towers .....	2	2		4
Brent .....	1	2	2	5
Lenox .....	1	1		2
McCormick .....	2			2
Total .....	9	8	4	21

Since September, 1890, the third and fourth floors of the Peabody building, consisting of four schoolrooms and one assembly hall, have been used as temporary quarters by the Eastern high school. It has been necessary on this account to use the two upper rooms in the Peabody annex, and also to unduly crowd the Carberry school with half-day schools. This pressure will be relieved next year when the Eastern high school takes possession of its new building on the Wallach square. There will then be no half-day schools above second grade, excepting, perhaps, in the Brent building.

I think no new buildings will be required in this division for a year or two, but in view of the crowding, present and prospective, of the Brent, McCormick, Lenox, and other schools lying in the southern part of the division, I suggest a four-room addition to the McCormick school if the ground is ample and the plan feasible. There are now five schools in this building, none above the fourth grade, so that pupils passing into higher grades have some distance to go to school. To accommodate the population of this rather isolated neighborhood I think it is desirable to carry the grades in the McCormick at least as far as the seventh.

TABLE III.—*Showing the condition of school buildings.*

Name.	No. of rooms.	How heated.	Light.	Ventilation.	Water closets.	Grounds.	Play rooms.
Wallach .....	12	Steam ....	Excellent.	None .....	Fair .....	Ample..	None.
Peabody .....	12	Steam ....	Excellent.	Good .....	Fair .....	Small...	Two.
Carberry .....	8	Furnaces .	Excellent.	Excellent.	Excellent.	Small...	One.
Maury .....	8	Furnaces .	Excellent.	Fair .....	Excellent.	Ample..	Two.
Towers .....	8	Furnaces .	Excellent.	Excellent.	Excellent.	Small...	One.
Brent .....	8	Furnaces .	Excellent.	Fair .....	Fair .....	Small...	Two.
Lenox .....	8	Furnaces .	Excellent.	Excellent.	Excellent.	Small...	Two.
McCormick .....	4	Furnaces .	Excellent.	Excellent.	Excellent.	Ample..	None.
Peabody annex * .....	4	Stoves ....	Poor .....	None .....	Poor .....	Small...	None.

\* Rented building.

† Two rooms used by manual-training school and cooking school.

You will observe that in the foregoing table the Wallach building is set down as having no ventilation. This is strictly true. It is also true that the rooms in this unventilated building are much smaller than in any other owned building in the division. The air is therefore speedily vitiated, finds no outlet, and is breathed again and again by from forty to fifty pairs of lungs in each school room. It is a tribute to the physical endurance of the pupils and teachers in this building that the attendance and general scholarship of the children compare favorably with other schools.

In my report for the year ending June 30, 1888, I urged at length the necessity of certain improvements to this building. I then called attention to the fact that the Wallach was built in 1864, being the first twelve-room building erected in the city, and that appliances for ventilation, then deemed sufficient, were provided, which have since become inoperative. I then said: "So far as I can see there is not a room in the building that has any artificial means of ventilation whatever. I do not know who is responsible for diverting these ventilating flues from their original uses, but I think steps should be taken at once to restore them. If this can not be done, the four draft chimneys not now in use should be enlarged and used as ventilating shafts."

This latter suggestion was made by a committee of the Board of Trustees as far back as 1878. (See report 1877-'78, p. 21.)

It is now four years since I wrote the above and fourteen years since the Board of Trustees made the suggestion alluded to, yet nothing has been done. That the Superintendent and the Board of Trustees have not failed in their duty is shown by the fact that in 1889 an estimate of \$11,000 was presented, and in 1891 a like amount, for renovating the Wallach school.

The estimate of 1889. was disallowed by the Commissioners, while that of 1891 was stricken out and an allowance of \$2,000 for iron stairways substituted. I earnestly recommend that the estimate be revived for ventilating and renovating the old Wallach school, putting in teachers' rooms, cloak rooms for pupils, basement play-rooms, sanitary water-closets for pupils, ladies' retiring room for teachers, and fencing and improving the grounds.

#### ATTENDANCE AND TARDINESS.

The attendance during the school year just ended was not as good as in 1890-'91, the average per cent for the division being 93.3, whereas for the previous year it was 93.5.

The best attendance, 97.8, was, as is usually the case, in September; the poorest, 90.4, being in January.

TABLE IV.—*Showing average per cent of attendance for the year, by buildings, and other facts.*

Building.	Num- ber of schools.	Per cent of attend- ance.	Number of cases of tardi- ness.	Average number of cases of tar- diness per teacher.
Peabody and annex .....	12	92.9	372	31
Carberry .....	11	94.0	234	21
Maury .....	8	93.4	209	26
Towers .....	10	92.6	143	14
Wallach .....	10	94.2	118	11
Brent .....	10	93.3	149	14
Lenox .....	9	93.8	101	11
McCormick .....	5	93.4	51	10
Total .....	75		1,377	

TABLE V.—*Showing average per cent of attendance for the year, by grades, and other facts.*

Grade.	Num- ber of schools.	Per cent of attend- ance.	Number of cases of tardi- ness.	Average number of cases of tardiness per teacher.
First .....	10	91.1	255	25
Second .....	10	92.5	188	18
Third .....	10	93.6	177	17
Fourth .....	10	93.1	145	14
Fifth .....	11	93.2	266	24
Sixth .....	9	93.7	181	20
Seventh .....	8	94.9	88	11
Eighth .....	7	94.7	77	11
Total .....	75		1,377	

A study of the above tables shows that the highest average of attendance by buildings was in the Wallach school, 94.2, the lowest average 92.6, being found in the Towers school.

By grades the seventh leads with 94.9, the lowest, 91.1, being in the first grade.

The highest average per cent of attendance in any single school was found to be 96.5, while the lowest was 89.1.

The latter is the only school falling below 90 for the year, and the low percentage is chargeable to a long continued epidemic of whooping cough.

On the whole while the average is lower than last year, it can be said that the attendance was good.

#### TARDINESS.

The number of cases of tardiness reported is 1,337 for 75 schools, averaging 18 cases per school, as against 17 cases per school last year. This shows an increase, although the total is not to be regarded as ex-



cessive. In fact the tardiness is less than in any other division. Attention is called, however, to the discrepancies which exist between buildings and between schools in the same building in this matter. You will observe that the average number of cases of tardiness per teacher in the McCormick school, a school situated in the midst of unpaved thoroughfares, is 10, while the Peabody school, easily accessible in all sorts of weather, reports 31 per teacher.

Again, the Wallach and Lenox schools average only 11 cases, while the Carberry and Maury schools report, respectively, 21 and 26 cases.

These inequalities are not chargeable to the teachers of any building as a class, but in most cases are caused by the carelessness of one or two teachers. Table V shows that, comparing the schools by grades, the first grade reported the largest number of tardinesses per teacher, 25, the seventh and eighth grades having the smallest number, 11.

#### TRUANCY.

In the early part of June, desiring to ascertain the facts as to truancy, and as to the causes of the falling off in the enrollment which invariably takes place after the month of October, I asked the teachers certain questions, which I give below with the answers:

1. How many pupils have you had on your roll during the year who are known to have absented themselves from school at any time without their parents' knowledge?—Answer. One hundred and four.

2. Of these how many are known as habitual truants?—Answer. Thirty-five.

3. How many pupils have withdrawn from school to go to work?—Answer. One hundred and nineteen.

4. How many have withdrawn from school giving no reason therefor?—Answer. Fifty-one.

5. How many have forfeited their seats and made no effort to be reinstated?—Answer. One hundred and ten.

6. How many have withdrawn from school (not returning) on account of sickness?—Answer. One hundred and thirty-seven.

It appears from these statements that there were 104 pupils who were at one time or another guilty of truancy, and of this number 35 were known to their present and former teachers as chronic truants. I have the names and addresses of the latter class. Some of them are the children of intelligent and highly respectable parents, who nevertheless confess their inability to compel the attendance of their children at school. To the honor of our teachers it may be said that they cling to these wayward boys with an almost motherly solicitude, frequently requesting permission to take them back after my own judgment has refused to tax their patience any longer by reinstating them.

In close kinship to the 104 known truants are the 51 who have withdrawn from school, "giving no reason," and that other contingent of 110 who have forfeited their seats and made no effort to be readmitted; while of the 119 who withdrew to go to work, I ascertained that many are children of tender age who go to school from September to December, find temporary employment at Christmas time, and from January to the following September are neither at work nor at school,

Here then are 384 pupils, 104 of whom have already begun their career as truants, 35 being chronic cases; 51 left school without explanation; 110 absented themselves and have not since been heard from, while 119 left school to go to work, a large proportion of whom are now on the street.

Making the most liberal deductions from the above figures in the interest of fairness, does it not still remain true that if like conditions exist in other divisions, we carry on our rolls from year to year hundreds of pupils whose school career is altogether fitful and uncertain, and upon whom the boasted influence of the public school counts for little or nothing?

It is to be deplored that there are so many children in our schools whose continuance at school, instead of being regulated by wise parental constraint, has been left largely to the child's own caprice. In my report for 1889, in discussing this subject I suggested that "in the absence of truant officers the police force be empowered to execute the compulsory educational law said to be already on our statute books." You will permit me here to quote your own earnest words in your report for the same year:

If it is not thought desirable or is not possible to secure by legislation one or more truant officers, to be directed by the superintendents, I suggest the propriety of asking the honorable Commissioners to detail one or two police officers for this purpose. I feel very sure that for every dollar spent in this sensible prevention of crime many times that sum will be saved by the decreased necessity for the detection and punishment of crime.

### THE WORK OF THE TEACHERS.

#### THE FIRST GRADE.

There were ten schools of this grade last year, in all of which good and faithful work was done. Most of these classes are taught by recent graduates of the normal schools, so that it is preëminently true of the first grade that the teaching is largely determined in its character by the thoroughness of the preparation given in the normal school. In fact the whole tone of the work is what the normal school makes it. While the results secured in this grade are uniformly good, they would be better but for the fact that sometimes young graduates are assigned to first-grade schools, who tell me that they have had comparatively little practice in this all-important grade while in the training school, having been employed chiefly in grades above the first. It seems reasonable that since our normal graduates are necessarily set to work in the first and second grades, the largest part of their practice should be in these grades.

Can not our normal-school teachers so regulate the practice work as to furnish to every member of the class the completest possible equipment for the work of the first grade, while not sacrificing that enlargement of view, that familiarity with the whole course which is sought in



giving the pupil teachers a limited experience in grades that are higher? I have never doubted the future of the teacher who makes an immediate and unqualified success of her first year's primary work, and I have never been disappointed in her. She is bound to rise, for success in the first grade implies the possession of every essential element of the successful teacher, with the possible exception of extended scholarship. If there is any fault common to our first-grade teachers it is not lack of studious care in preparing the materials for their work, but rather want of ability to present them in the most effective way. If knowledge is lacking it is knowledge of the child rather than of the subjects of study.

Some teachers have an almost instinctive knowledge of the child's nature, showing itself at once in the skillful use of those varied methods which first engage the attention, and then hold it with a steady grasp, after which teaching becomes easy and learning a delight. Few of the young ladies who present themselves at the threshold of our normal school have this native power to "hold" a school of young children. It should therefore be acquired. At the risk of seeming to place undue emphasis on what is rightly regarded as the most artificial part of the normal graduate's training, I express the opinion that our pupil teachers ought to be put oftener in the presence of an expert primary teacher for the purpose of acquiring by observation—by imitation, if you please, if they do not possess them already, those charms of manner, that swiftness of movement, modulation of voice, simplicity of speech, instantaneous power of control, economy of time, and a host of little essentially feminine arts—the arts of the nursery and the kindergarten—without which all womanly sincerity and truth, all scholarship, all plodding industry, all devotion to duty seem to profit nothing in the presence of fifty bright-eyed six-year-olds.

Of the ten first-grade teachers in this division all did good work with the exception of one, who seems to fail somewhat in securing attention. Her industry is so great, however, that in spite of the drawback of a restless school she will transfer a class fairly well qualified for promotion.

On the whole the work in reading and language was much in advance of that of last year, the former being due to better sound work, the large amount of reading matter furnished, and much of the latter to the intelligent supervision of Miss L. A. Denney. The writing ought to be better.

#### THE SECOND GRADE.

Of the ten teachers in this grade the work of eight was of a high order, two falling below the standard.

The written compositions were especially commendable. Reading did not show so great an improvement over last year as in the first grade, but was satisfactory, excepting in the schools noted. Some of



the older teachers in this grade claim that they can not get the best results in penmanship, owing to the absence of slates and the limited amount of ruled paper for practice.

#### THE THIRD GRADE.

There were ten teachers in this grade, all but one of whom did excellent work, she being incapacitated by age and infirmity from the possibility of successful teaching. Provision should be made for the retirement of such teachers. It may be said of this grade, as of the two preceding, that a distinct advance was made in English composition and reading. Especially worthy of commendation was the constant effort of the teachers to render the subject-matter in the reading books more intelligible by bringing into the school room, to be placed in the children's hands, illustrative objects. It was a rare thing to find a school engaged in reading without an ample supply of appropriate objects on hand, such as buds, leaves, flowers, fruits, insects, etc., whenever it was possible to get them.

At the close of the year I requested Miss Denney (to whose intelligent work in the direction of the teachers of the first three grades I have referred), to furnish me with a comparative statement of the work of the teachers of these grades so far as they came under her observation, with a view of ascertaining whether her judgment of the work of the primary teachers coincided with my own. I requested her to mark the teachers on three points: First, the teaching of language and composition, derived from her examination of the monthly sets of compositions sent in by the teachers. Second, command of the school, derived from her occasional visits thereto. Third, the degree of interest and enthusiasm shown in collecting material for illustrating the work in reading, to which I have referred.

The marks given agreed in the main with my own more frequent observations, and, except in the cases noted, were gratifying to me and creditable to the teachers.

I obtained in like manner the marks given by Miss Bentley and Miss Banks, the teachers of music.

#### THE FOURTH GRADE.

In this grade there were ten schools, with as many efficient teachers. If I except the primary science work which you designed to be done in connection with the use of the Normal Fourth Reader, and a rather meager amount of composition writing, the results obtained in this grade were more than usually satisfactory. It was evident that the teachers did not fully comprehend your aims in the teaching of elementary science suggested by the lessons in the first part of the fourth reader.

It seemed quite a simple thing to them to hand a poplar bud or a maple leaf to each child before taking up the appropriate lesson in the

third reader, but quite another thing to render palpable to the fourth-grade mind the underlying principle of an earthquake. Moreover, they found the lessons in the earlier pages of their book by far the most difficult reading, owing to the scientific nature of the subjects.

#### THE FIFTH GRADE.

Of the eleven schools of this grade, I am glad to be able to say all were well taught. A departure was made in the teaching of grammar and language. The text-book was abandoned and a brief but definite course laid out. This was pursued with great fidelity by all the teachers, though with misgivings by some. Much valuable training in composition was obtained from the course which began in October and continued daily until January.

The effect of this was seen in an increased facility of expression on the part of the pupils.

#### THE SIXTH GRADE.

There were no exceptions to the general excellence of the teaching in this grade. Less time might profitably be given to denominate work in this grade and more to a review of fractions, especially decimals. Gratifying progress was made in the teaching of the English sentence.

In the teaching of the beginning of American history there is, perhaps, a tendency to too much bare outlining. These skeletons should be clothed with more of the flesh and blood of story and song.

#### THE SEVENTH GRADE.

All the teachers in this grade rendered satisfactory service, excepting one.

The schools were thoroughly tested from time to time in percentage and exhibited, with the one exception, the results of careful training; the pupils' knowledge of the essentials of syntax was much in advance of previous years; the study of the history of the United States from the Revolution to the present time was intelligently pursued, frequent writing of brief paragraphs, biographical, narrative, or descriptive, being done in connection therewith; in short, the whole work of this important grade was faithfully accomplished.

#### THE EIGHTH GRADE.

In this grade there were seven teachers, all, with one exception, doing satisfactory work. I regret to say that there appeared to be less uniformity of excellence in this grade, so far as results can be measured, than in any other grade. I mean by this that while some of the teachers, indeed most of them, accomplished work that is rarely excelled, whenever I submitted test questions the results as determined by marks were extremely unequal.

Differences in results obtained by the teachers of a given grade are accounted for by differences in the qualifications of transfers and in the class of pupils taught. But these elements are found in other grades as well as the eighth, so that I am forced to the conclusion that causes for the unequal results in the grade under consideration must be sought for elsewhere. The amount of time lost from the school-room by the teachers in the discharge of their duties as principals of buildings varies greatly, and may partially explain the differences in results referred to. The chief cause lies, however, in the difference of practice among the teachers in dividing the year's work and in the amount of work done in a given subject. The teachers are not altogether to blame for this, but rather the course of study, which has left more to their discretion than is consistent with the securing of reasonably uniform results. For example, no two of the eighth grade teachers covered just the same ground in arithmetic, grammar, United States history, physiology, or physical geography.

Several of them took up, to the delight of their pupils, a brief course in English literature covering a period of several months. *Snowbound*, *The Legend of Sleepy Hollow*, *Ivanhoe*, *The Christmas Carol*, and perhaps one or two other masterpieces were studied as thoroughly as is desirable by pupils of this age. Yet this delightful exercise was wholly omitted in at least one of the schools, and in others comparatively little was attempted. When the formal study of English literature is taken up in the high school next year it is easy to see that the pupils of these delinquent teachers will be at a great disadvantage.

It is hoped that the course of study now in preparation will assist the teachers of this grade in subdividing the work of the year, and will prescribe more definite limits with a view of securing greater uniformity in the teaching.

#### MANUAL WORK.

Our teachers are becoming convinced of the high educational value of molding in clay. They say it has given an extraordinary impetus to drawing. This confession has all the more value because it has been made in the face of the fact that teaching clay molding is seldom regarded as a pleasant or easy task. Some of the specimens presented for exhibition were wonderful.

The wonder is that boys and girls of tender age could achieve such things after a few desultory lessons, but a greater wonder is found in the fact that our teachers could guide their pupils into the niceties of an art of which they themselves had been taught so little. A point seems to have been reached in this line of work beyond which the teachers can not go without special training. A few have put themselves under the tuition of artists at their own expense, and others must do so if they are to keep pace with the requirements of the course. The majority do not feel able to do this, and the consequence is that a few schools exhibit the results of expert teaching while others fall below



the standard. I can think of nothing that would be hailed with greater satisfaction by the teachers than the establishment of a course of lessons in clay molding, free to all. If, in addition to this, it were possible to distribute the work in clay over the whole year, instead of crowding it into a few weeks at the end of the year, the only valid ground of criticism upon the course as at present arranged would be removed, and results far surpassing any yet seen might be looked for.

I desire to acknowledge my personal indebtedness to you for your impartial interest in the schools of the third division, and for the assistance you have given me in the performance of my duties.

My thanks are due also to Mr. J. W. Whelpley, trustee, for his willingness to do everything possible to improve our schools, and for his uniform kindness.

It gives me pleasure also to commend again the devotion and enthusiasm of the teachers under my supervision.

Respectfully submitted.

A. T. STUART,  
*Supervising Principal.*

Mr. W. B. POWELL,  
*Superintendent Public Schools.*

#### FOURTH DIVISION.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: In accordance with your request, I have the honor to submit herewith the annual report of the schools of the fourth division for the year ending June 30, 1892.

In the following general summaries and exhibits of comparative statistics, the results of the past year are brought together for convenient reference and general survey. They are condensed from the monthly reports of teachers.

##### *Number of schools.*

First grade.....	9	Sixth grade .....	7
Second grade.....	8	Seventh grade.....	5
Third grade .....	8	Eighth grade.....	3
Fourth grade.....	7		
Fifth grade .....	7	Total .....	54

#### SCHOOL ACCOMMODATIONS.

TABLE I.—*Showing distribution of schools.*

Building.	Eighth grade.	Seventh grade.	Sixth grade.	Fifth grade.	Fourth grade.	Third grade.	Second grade.	First grade.	Total.
Jefferson .....	2	3	4	3	2	2	1	1	18
Amidon .....			1	2	2	1	2	2	10
Bradley.....	1	1	1	1	1	1	1	2	9
Smallwood.....		1	1	1	2	2	1	1	9
Greenleaf.....						1	2	2	5
Potomac.....						1	1	1	3
Total .....	3	5	7	7	7	8	8	9	54

TABLE II.—*Showing attendance and other facts.*

Months.	Whole number enrolled.			Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Pupils to school based on—	
	Boys.	Girls.	Total.						Whole enrollment.	Average enrollment.
September .....	1,299	1,268	2,563	2,390	2,320	97.0	54	36	47.4	44.3
October .....	1,349	1,294	2,643	2,515	2,300	93.2	54	351	48.9	46.6
November .....	1,315	1,280	2,595	2,510	2,343	92.9	54	253	48.2	46.5
December .....	1,293	1,250	2,543	2,435	2,175	91.5	54	223	47.1	45.1
January .....	1,269	1,238	2,507	2,357	2,040	87.6	54	299	46.4	43.6
February .....	1,250	1,227	2,477	2,352	2,166	92.0	53	213	46.7	44.4
March .....	1,223	1,210	2,433	2,332	2,116	90.4	53	212	46.1	44.0
April .....	1,180	1,192	2,372	2,252	2,050	90.9	53	143	44.7	42.5
May .....	1,144	1,172	2,316	2,215	2,039	91.8	53	148	43.7	41.8
June .....	1,087	1,136	2,223	2,134	1,994	92.9	53	75	41.9	40.3

TABLE III.—*Showing attendance and other facts by buildings.*

## JEFFERSON.

September .....	387	500	887	854	832	97.4	18	9	49.3	47.4
October .....	383	490	873	852	800	94.5	18	161	48.4	47.3
November .....	373	497	870	849	800	93.5	18	92	48.3	47.2
December .....	371	489	860	823	743	92.7	18	111	47.8	45.7
January .....	351	480	831	794	710	89.0	18	147	46.2	44.1
February .....	358	485	843	800	746	93.2	18	104	46.8	44.4
March .....	352	469	821	786	725	90.8	18	99	45.6	43.7
April .....	342	458	800	767	704	91.1	18	53	44.4	42.6
May .....	336	448	784	749	697	93.1	18	31	43.5	41.6
June .....	317	442	759	709	665	93.1	18	25	42.2	39.4

## AMIDON.

September .....	328	174	502	460	443	96.2	10	4	50.2	46.0
October .....	341	180	521	496	419	92.7	10	86	52.1	49.6
November .....	336	176	512	496	461	92.2	10	49	51.2	49.6
December .....	328	174	502	501	424	90.0	10	43	50.2	50.1
January .....	323	172	495	456	398	87.3	10	56	49.5	45.6
February .....	305	165	470	448	410	90.3	10	37	47.0	44.8
March .....	290	165	455	436	396	90.7	10	42	45.5	43.6
April .....	276	165	441	426	390	90.9	10	37	44.1	42.6
May .....	267	169	436	420	388	92.2	10	39	43.6	42.0
June .....	258	164	422	416	393	92.9	10	24	42.2	41.6

TABLE III.—Showing attendance and other facts by buildings—Continued.

## BRADLEY.

Months.	Whole number enrolled.			Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Pupils to school based on—	
	Boys.	Girls.	Total.						Whole enrollment.	Average enrollment.
September.....	205	212	417	396	386	97.3	9	1	46.3	44.0
October.....	213	227	440	415	384	92.6	9	31	48.9	46.1
November.....	205	222	427	418	389	93.0	9	48	47.4	46.4
December.....	202	210	412	403	365	90.8	9	28	45.8	44.8
January.....	208	205	413	378	331	87.6	9	42	45.8	42.0
February.....	197	201	398	387	352	91.2	8	29	49.7	48.4
March.....	195	197	392	384	347	90.2	8	31	49.0	48.0
April.....	184	193	389	371	336	90.8	8	18	48.4	46.4
May.....	187	186	373	357	328	90.1	8	27	46.6	44.6
June.....	184	178	362	349	329	94.1	8	8	45.5	43.6

## SMALLWOOD.

September.....	190	221	411	387	375	96.8	9	19	45.7	43.0
October.....	204	225	429	399	370	92.6	9	39	47.7	44.3
November.....	194	214	408	385	356	92.4	9	40	45.3	42.8
December.....	189	208	397	364	334	89.8	9	19	44.1	40.4
January.....	190	214	404	396	317	86.5	9	28	44.9	44.0
February.....	192	205	397	375	344	91.7	9	15	44.1	41.7
March.....	187	213	400	382	340	89.1	9	19	44.4	42.4
April.....	180	215	395	352	314	89.0	9	15	43.9	39.1
May.....	170	209	379	361	326	90.4	9	13	42.1	40.1
June.....	157	200	357	352	322	91.5	9	6	39.7	39.1

## GREENLEAF.

September.....	113	110	223	189	184	87.2	5	3	44.6	37.8
October.....	129	122	251	230	214	92.8	5	17	50.2	46.0
November.....	123	120	243	236	221	93.5	5	16	48.6	47.2
December.....	119	119	238	222	198	89.3	5	15	47.6	44.4
January.....	113	117	230	211	182	86.1	5	17	46.0	42.2
February.....	118	119	237	219	200	91.4	5	18	47.4	43.8
March.....	117	116	233	221	199	90.4	5	13	46.6	44.2
April.....	111	113	224	216	197	91.0	5	13	44.8	43.2
May.....	110	112	222	211	191	90.7	5	15	44.2	42.2
June.....	99	105	204	195	181	92.8	5	8	40.8	39.0

## POTOMAC.

September.....	72	51	123	103	100	96.8	3	0	41.0	34.3
October.....	79	50	129	122	111	91.1	3	17	43.0	40.7
November.....	84	51	135	127	117	91.8	3	8	45.0	42.3
December.....	84	50	134	122	111	90.0	3	7	44.7	40.7
January.....	84	50	134	121	102	83.9	3	9	44.7	40.3
February.....	80	52	132	124	114	91.3	3	10	44.0	41.3
March.....	82	50	132	124	109	88.0	3	8	44.0	41.3
April.....	77	48	125	120	109	90.9	3	7	41.7	40.0
May.....	74	48	122	117	109	92.8	3	5	40.7	39.0
June.....	72	47	119	115	104	91.1	3	4	39.7	38.3



TABLE IV.—*Showing the location and grades of half-day schools.*

Building.	First grade.	Second grade.	Total.
Jefferson .....	1	1	2
Amidon .....	2	2	4
Bradley .....	2	1	3
Smallwood .....	1	1	2
Greenleaf .....	2	2	4
Potomac .....	1	1	2
Total .....	9	8	17

TABLE V.—*Showing the sanitary condition of rooms in buildings.*

Buildings.	Number of rooms.	How heated.	Light.	Ventilation.	Water-closets.	Play rooms.
Jefferson .....	20	Steam ..	Excellent.	Fair .....	Excellent.	Ample.
Amidon .....	8	Furnace	Excellent.	Excellent.	Excellent.	Excellent.
Bradley .....	8	Furnace	Excellent.	Excellent.	Excellent.	Excellent.
Smallwood .....	8	Furnace	Excellent.	Excellent.	Excellent.	Excellent.
Greenleaf .....	3	Stoves ..	Excellent.	Fair .....	Bad .....	Fair.
Potomac .....	3	Stoves ..	Excellent.	Fair .....	Bad .....	Fair.

## DISCIPLINE.

The successful teacher is he who has perfect discipline. He who can teach but can not govern works to an enormous disadvantage. Perfect discipline in a class or a school is an indispensable condition of successful teaching. It is necessary for the pupils, not only because by it they will learn in a given time twice as much, but because one of the things they come to school to acquire is the practice of obedience. The pupil who does not at least acquire that at school has been under instruction to little purpose, though he may have made great progress in his studies. In this connection I desire to call the attention of the teachers to the all-important subject, obedience. It applies to every teacher. His health, his temper, and his happiness suffer, if he can not command perfect obedience. I believe thoroughly that the work of the teacher would be diminished one-third were the pupils taught obedience, or attention, if you choose that name. How often do I hear teachers ask over and over again the same question, and the pupil has not yet heard. This is the teacher's own fault, and unless this habit is corrected you must neither expect happiness nor health; for health depends largely upon temper and happiness.

This particular *evil*, inattention, on the part of pupils causes more loss of time, more hard work, and more gray hairs than all other school evils combined, and I trust that each teacher will examine herself, and if she finds the above conditions to exist in her school, to

immediately correct them. Obedience or attention may be secured either by influence or by force, and it is better to gain it by force than not at all; but by some means or other it must be had, for without it the school is inefficient for every purpose for which it is intended. The best methods for obtaining desired results should be studied by you. Pupils should feel, when they see you exercising authority, that there is a great reserve of unused strength and resolution behind, which they can neither see nor measure. It is not the visible exercise of power which impresses children most, but the unseen, which affects their imagination and to which they can assign no limit. All noise and shouting aggravate the evil and utterly fail to produce more than a temporary lull at best. Never give a command unless you are sure you can enforce it nor unless you mean to see that it is obeyed. Much could be said upon this topic, but I only desire to call the attention of the teachers to this all-important subject. I do not wish, however, to be understood that the discipline is poor, for on general principles it is good.

#### THE COURSE OF STUDY.

It would involve unnecessary repetition of much that has been said in previous reports to speak in detail, at length, of the work done in each branch pursued in our schools. But looking back over a period of five or six years, the progress that has been made is evident and gratifying. The character of the discipline is more satisfactory, the methods of teaching have been improved, and the teachers, with few exceptions, are better prepared to perform the duties to which they are assigned. I desire to state that the supervision given to the first three grades by Miss L. A. Denney has been faithfully performed, and the results as shown by those schools in my inspection in May were very gratifying. The pupils in most of the schools were very strong in the ability to help themselves to new words, owing to their knowledge of sounds. Composition work was good. Penmanship should be emphasized another year.

We can not impress too much upon the teacher's mind that each lesson in arithmetic must be a lesson in language at the same time. This acquirement is indispensable. As the pupil in the primary grade should be generally held to answer in complete sentences, loud, distinctly, and with clear articulation, so, especially in arithmetic, the teacher has to insist on fluency, smoothness, and neatness of expression, and to lay special stress upon the process of the solution of each example. As long as the language for the number is not perfect, the idea of the number is also defective. An example is not done when the result has been found, but when it has been solved in a proper way. Language is the only test by which the teacher can ascertain whether the pupils have perfectly mastered any step or not. Teachers should avoid asking too many questions. Such questions, moreover, as by containing half the answer prompt the pupils should be omitted. The pupil should speak himself.

The language in the upper grades is better than in previous years. History and geography have been well taught. Penmanship, I think, should be emphasized another year. Arithmetic justly holds a large place in the plan and course of work in our schools. The reasons for this are evident. Number is an essential element in the nature and constitution of the mind, and in all the processes and exercises for the development and training of the powers of the mind it necessarily forms an important part. On certain lines, however, I think an improvement could be made if teachers would consider more carefully review work. Before proceeding to any new principle give a few exercises which call out not alone the previous principle or rule, but all the preceding rules. Exercises ought to be so graduated, and examples so carefully framed by the teachers as to bring into play all that has been previously learned, and to fix and fasten the memory of former rules. I do not mean that teachers shall stop all advance work, and at formal and stated times tediously and laboriously repeat all that has been gone over. What I do mean is, that teachers shall so shape and conduct all their exercises that the pupil will be compelled to use his previously acquired knowledge and drill.

By this method each grade reviews thoroughly all the work below it. I recommend more frequent written review work of all branches of study, not as a special test of their knowledge of these studies, but as a lesson in language, spelling, penmanship, and form of placing work upon paper.

#### MANUAL TRAINING.

All the graphic work in the schools may be classed under the head of manual education, which includes carpentry, cooking, sewing, paper-folding, clay-modeling, drawing, and much seat work in the lower grades. The introduction of industrial education as a part of the course of instruction seems to harmonize with and conform to the tendencies of the educational thought of the present time. In previous reports were extracts from each teacher in whose school one of the three forms, carpentry, sewing, or cooking was taught.

Under the guidance of Mr. E. J. Dakin, 165 boys from the seventh and eighth grades, in classes of 12, received instructions in carpentry. Sewing was taught during the year in the third, fourth, fifth, and sixth grades to 665 girls in 23 different schools, by Mrs. S. M. Davidson, Mrs. E. R. Thornton, Mrs. C. L. Stanton, and Mrs. A. L. Norris. Of the 665 girls, 152 of the sixth grade were taught cutting and fitting by Mrs. A. L. Norris. Two hundred and six girls from the seventh and eighth grades, in classes of 15, were instructed in cookery by Miss M. E. Davis. The above figures were taken from the monthly reports of said teachers.

In reviewing the work of the year, and comparing the past with the present, as shown by the results exhibited at the close, justifies me in saying that our schools are better than ever before,



Before concluding, I desire to suggest that each branch of work be well considered in making a new course of study, as from time to time for the past few years many new branches have been added and some extended. In consequence there is a feeling "all along the line" calling for a readjusting of the work, so as to give more time to the important subjects and less to the unimportant. I think your idea is that the legitimate work of the public schools is not to fit a few bright pupils for the higher institutions of learning, but the giving to all our youth that education and training which shall best fit them to become good citizens of the republic. I further suggest that a good spelling book be placed in the course of study.

In closing this report, I wish to express my thanks to yourself for the many kindnesses received at your hands; to Dr. D. H. Hazen for his deep interest in the public schools of South Washington, and to the principals and teachers for the hearty coöperation lent to every effort on my part to give the schools under my immediate supervision the uttermost efficiency.

Very respectfully,

ISAAC FAIRBROTHER,  
*Supervising Principal.*

Hon. W. B. POWELL,  
*Superintendent Public Schools, Washington, D. C.*

#### FIFTH DIVISION.

MY DEAR SIR: Herein please find a brief report of the condition of the schools of the fifth division for the year just closed.

Again I have the pleasure of announcing that good work has been done and good progress made in the schools under my charge.

The corps of teachers, on the whole, are deserving of the most favorable consideration for their efforts to raise the standard of education, and have generally, I believe, labored faithfully for the improvement of themselves in their profession and have shown a commendable emulation in their efforts for good results. Grade meetings have been held regularly and faithfully attended, and they have been characterized in many instances by the exhibition of the highest talent and encouraging evidence of industrious and original preparation.

There are in my division sixty-one schools, viz:

First grade.....	10	Fifth grade.....	9
Second grade.....	8	Sixth grade.....	7
Third grade.....	8	Seventh grade.....	5
Fourth grade.....	8	Eighth grade.....	6

Which are distributed as follows:

Buildings.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.
Curtis .....					1	1	1	2
Grant .....	2	2	2	2	2	2	1	1
Jackson .....				1	1	2	1	2
Weightman .....	1	1	1	1	1	1	1	1
Addison .....	1	1	1	1	2	1	1	
Corcoran .....	2	2	2	1	1			
Threlkeld .....	1	1	1	1				
High Street .....	1	1	1	1				
Industrial Home .....	1				*1			
Congress Street .....	1							

\*This school includes pupils of second to sixth grade, inclusive.

In the Curtis building five rooms are occupied by the Western high school and one by the Peabody Library.

#### THE WESTERN HIGH SCHOOL.

This new adjunct to the fifth division is one of which I have every reason to be proud. It sprang into existence two years ago under rather unfavorable auspices, both as to members and accommodations; but, owing to the wisdom of the Board of Trustees in selecting an able corps of specialists, it has grown and flourished, surmounting all obstacles, until, so far as it has gone, it is worthy to rank with the best of its class.

At first it boasted only a first-year class; the past year a first and a second year class. Next year a third-year class will be added; and so it will develop until it becomes a fully fledged, full-grown high school. As it has expanded rooms formerly occupied by grade schools have been granted, and will continue to be, until, perhaps, at no distant date it will occupy, with the Peabody Library, the whole of the Curtis building or a new one erected especially for its needs.

#### SCHOOL WORK.

So far as school-room work is concerned, for 95 per cent of my teachers I have only words of commendation. The various branches, as a whole, have been well taught and the results have been exceedingly gratifying. To refer minutely to each subject in the course would involve much unnecessary repetition. The general excellence of former years has been well sustained. The subject of language, perhaps, has made most marked advancement, especially the reading in the lower grades. A year's successful experience with the use of the Normal readers has shown that the supervisors made no mistake in urging their adoption.

## MANUAL TRAINING.

As this good work goes on from year to year I see no reason to recede from my very high estimate of its effects and results. It was predicted that as the novelty of the thing wore off the girls would tire of cooking and sewing and the boys would weary of carpentry, but experience has not shown this result. A very few have asked to be relieved, but not more, I am sure, than would gladly be relieved from other studies if opportunity occurred. As the teachers become experienced the schools improve and the interest on the part of the pupils increases. The classes are too large in many instances to insure the best results, but I see no remedy for this until our new building is completed.

## DISCIPLINE.

This is a matter that gives us little trouble. The former plan of getting rid of pupils who annoy has almost entirely vanished. During the past year there have been in the fifth division no cases of dismissal, 19 cases of corporal punishment, and 41 cases of suspension. This, with an average enrollment of 2,606.1, seems inconsiderable indeed in face of the facts shown by the following table:

*Table showing the average enrollment, cases of corporal punishment, dismissals and suspensions in the first six divisions for the ten years mentioned.*

	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
Average enrollment .....	2,520	6,734	6,890	7,835	8,254	9,831	10,805	11,627	12,325	12,956
Cases corporal punishment .....	640	367	429	114	105	249	264	298	165	153
Dismissals .....	310	297	173	235	134	144	154	109	91	62
Suspensions .....	531	601	325	447	253	233	326	664	456	418

During the past ten years there has been a steady decrease in the totals of the last three of the above-named items, which is certainly gratifying.

## ATTENDANCE.

In this particular I am not quite satisfied, yet there does not seem to be much cause for complaint. I can see that for the past few years the percentage of attendance has been slightly lowering. The average attendance of the pupils of the public schools of Washington for the year 1880 was 95.3 per cent. I do not think it has reached that figure since. The average attendance in the fifth division the past year is 91.1 per cent. The whole cause of this diminution is not apparent, although it can be traced in a measure to the growing laxity on the part of parents, encouraged somewhat, perhaps, by the leniency on the part of the teachers.

As a partial remedy I would suggest that an occasional "open letter" to the parents, setting forth the great importance of punctuality as a factor in the proper education of boys and girls, might bring about a closer relation between patrons and the schools.



## TRUANCY.

So much has been said and so much stress has been laid upon this very important subject in former reports of the superintendent and supervisors, without the least beneficial result, that it would seem almost useless to again refer to it, yet the fact that it is a great and growing evil is none the less apparent.

## BUILDINGS.

These, generally, are in fine condition. The old High street building, long since condemned, improves not with age. Our one rented room is not desirable, and I regret to say that this condition of things will be augmented by the rental of another less desirable building for the coming year. All of these difficulties, however, will be removed upon the completion of the new building which is to be erected during the coming year.

## JANITORS.

The janitors have, as a class, done good service. I have only to note an exception in one or two cases. In this connection I would again refer to what I have urged in a former report, namely, the necessity of better salaries for janitors of the smaller buildings. The need of this is imperative. The pay is insufficient to secure a good man who will give his whole time to it. There should be a trustworthy man in charge of every building the principal of which is a lady and where boys and girls attend. There are certain duties, whose importance is apparent, which can only be performed by a man.

## REGRETS.

It is with great regret that I have to note the fact that two of my teachers, Miss Mariana Schooley, of the eighth grade, in the Curtis building, and Miss Henrietta Cattell, of the sixth grade, in the Grant, both of whom stood in the front rank of the corps, tendered their resignations to take effect July 1, 1892. These ladies are both graduates from our Washington Normal school, and have been, from the time of their appointment to the first grade, faithful, progressive, excellent teachers. May their married lives be attended by unalloyed happiness.

## CONCLUSION.

In conclusion, I would acknowledge gratitude to you for great consideration and many indulgences; to the trustee of the division, Mr. John T. Mitchell, for cheerful encouragement and unvarying support; and to the faithful teachers, to whom is due the credit for whatever excellent there may be found in the schools of this division, I am especially grateful.

Respectfully,

B. T. JANNEY,  
*Supervising Principal.*

## SIXTH DIVISION A.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit my annual report of the schools of the sixth division A, for 1891-'92.

At the date of my last report (June 30, 1890) there were sixty-nine schools under my supervision, twenty-nine of this number being located east of the Eastern Branch of the Potomac and forty west. In view of the extensive territory of the sixth division, as well as the number of schools, the board on September 9, 1890, appointed an additional supervising principal, to whom were assigned all the schools east of the Anacostia River. On the 1st of October, 1890, the two schools located on the Bladensburg pike, near Mount Olivet cemetery, being more convenient to the schools of said division B, were included in that division.

During the past session 7 additional teachers were employed—1 at Brightwood, colored; 1 at the Wilson; 1 at the Mott; 1 at the Monroe; and 2 at Brookland; making a total of 46 teachers—23 white and 23 colored. An additional teacher will be needed at the Wilson school next session, and probably one more at Brookland.

## BUILDINGS, ACCOMMODATIONS, ETC.

There are fourteen school buildings in this division owned by the District, having a total of fifty-four rooms, forty-three of which are occupied, named, and located as follows:

TABLE I.

Name or location of building.	Number of rooms.		Number of schools.	Condition of outhouses.
	Owued.	Rented.		
Conduit road .....	1	.....	1	Excellent.
Little Falls road .....	1	.....	1	Do.
Tenlytown .....	4	.....	3	Good.
Grant road .....	2	.....	2	Do.
Brightwood (colored) .....	2	.....	2	Excellent.
Brightwood (white) .....	4	.....	4	Do.
Mount Pleasant .....	4	.....	5	Good.
Wilson .....	5	.....	4	Excellent.
Orphans' Home * .....		.....	2	Do.
Mott† .....	10	.....	10	Do.
Monroe .....	8	.....	5	Do.
Soldiers' Home .....	2	.....	2	Do.
Fort Slocum .....	1	.....	1	Do.
Brookland .....	4	.....	3	Do.
Queen's Chapel road .....	1	.....	1	Do.
Total .....	54	.....	46	

\* Neither owned nor rented by the District.  
† One for cooking and one for manual training.

The eight-room building for Meridian Hill and the four-room building for Brookland, except one room, recommended in my last report were completed last December and occupied by the schools of the respective localities on the 2d of January, 1892.

I would respectfully call your attention to the need of an eight-room building at Mount Pleasant, the present old frame building being inadequate to the needs of the schools at that place.

The Mott building is now full and will soon need additional room. There are four half-day schools in this building and two at Mount Pleasant.

The Conduit Road and Queen's Chapel Road schools need additional room also.

TABLE II.—Showing whole number of pupils enrolled for the year, by grade, sex, and color.

Grade.	White.			Colored.		
	Male.	Female.	Total.	Male.	Female.	Total.
First .....	160	123	283	179	218	397
Second.....	96	72	168	151	148	299
Third.....	77	82	159	108	96	204
Fourth.....	59	60	119	104	106	210
Fifth .....	56	54	110	51	66	117
Sixth .....	46	44	90	32	61	93
Seventh.....	38	29	67	6	17	23
Eighth.....	30	38	68	5	10	15
Total .....	562	502	1,064	636	722	1,358

A gain on the whole enrollment of last year of 190—62 white and 128 colored; on the average enrollment, 160—73 white, 87 colored. Average number of pupils per teacher, based on the whole enrollment, 53; based on the average enrollment, 41.

ATTENDANCE AND DISCIPLINE.

The percentage of attendance is 89. Tardiness has been diminished to the number of 70 cases. No cases of truancy have been reported. There were 29 cases of corporal punishment; 1 in the white schools, 28 in the colored.

There have been very few cases of suspension, or dismissal during the year, thus showing a healthy and satisfactory growth in the moral tone of the schools.

There is a steady annual increase in the school enrollment and attendance in the county, additional accommodations usually keeping pace with the increase. It is believed that a salutary influence has been exerted over the schools by supplying the first four grades with free books and supplies, by developing in the pupils a desire for better attendance, better behavior, and higher aspirations.



## SCHOOL WORK.

For the last two sessions, having had a smaller territory to travel over and fewer schools to supervise, I have been enabled to visit the schools more frequently and to devote more time to the inspection of school work. While regarding it as unnecessary to enter into a detailed statement of what has been done in each subject taught, as has been the case heretofore, I wish to report satisfactory improvement in the work done in most of the schools.

The number and language work in the lower grades has been especially good. More attention than usual has been given to teaching sounds and with better results. I think the higher grades also have shown more strength in arithmetic and composition than in former sessions.

With few exceptions the teachers have been prompt and faithful, many of them deserving special commendation for the zeal displayed in the performance of their duties.

## IN MEMORIAM.

On the 18th of December, 1890, Mr. Harry R. Peters, principal of the Mott school, after a short illness was called away from loved ones, friends, and teachers to render his account to Him who doeth all things well. Mr. Peters had been a teacher in the county schools about ten years. He was devoted to his school, enthusiastic in his work, and constantly striving to excel in his profession. The patrons, teachers, and pupils of the Mott school will not soon forget his earnest efforts in their behalf.

## SCHOOL LIBRARIES.

I believe there has been but little if any increase in the number of volumes in the school libraries of this division, largely due to the fact that so few of the teachers have any safe or convenient place in which to place books when purchased.

## SPECIAL STUDIES.

*Manual training.*—The only school of carpentry in this division is at the Mott building.

Boys from the Brightwood, Monroe, and Brookland schools have attended the manual-training school at the O street building, and from Mount Pleasant at the Force building. It is desirable, as early as practicable, to locate a school of carpentry convenient for the above-named schools and also the Soldiers' Home school.

*Cooking.*—In addition to the cooking school at the Mott, a room was rented on Steuben street, opposite the Monroe building, and a school opened on the 9th of January, 1891. Girls from Mount Pleasant and

the Monroe have attended this school, which has been very satisfactory in its results, much zeal having been manifested by teachers and pupils.

Previous to this arrangement the girls from Mount Pleasant attended such school at the corner of Vermont avenue and N street northwest.

*Sewing.*—Classes in sewing were opened at the Tenlytown and Monroe schools at the beginning of the session in September, 1890. A sewing class was for a short time taught at the Columbia Road (now Wilson) school, but owing to the difficulty of getting to the school and the small number in the class it was discontinued.

The popularity of manual training in all its branches is well established. It is desirable that these schools be brought within easy reach of the pupils of all sections of the county as soon as practicable.

*Physical culture.*—This subject has been well and faithfully taught in the schools convenient of access for the special teachers. In four or five schools that can not be conveniently reached no regular instruction has been given other than that given by the regular teacher.

Such has been the case with these schools in regard to all the special studies.

*Drawing.*—Drawing has been pursued, as heretofore, with unabated interest and with a good degree of success.

*Music.*—Better results than usual were secured in vocal music during the session just ended. The method of teaching this delightful study has been made so simple and attractive that the children find pleasure as well as profit in the exercise.

#### CONCLUSION.

In conclusion I wish to return thanks to the teachers, trustees, and yourself for coöperation and for interest manifested in the success of the schools.

Very respectfully,

J. R. KEENE,  
*Supervising Principal.*

Mr. W. B. POWELL,  
*Superintendent Public Schools.*

---

#### SIXTH DIVISION B.

WASHINGTON, D. C., June 30, 1892.

Owing to the fact that the reports of the supervisors for the year 1890-'91 were consolidated in a report by a committee of their number, many items of local interest were necessarily omitted; hence, this report covers, in part, the record of that year as well as last.

When created the sixth division B, was composed of twenty-nine schools, of which one was double, located and made up of grades as shown in the following table:

TABLE I.—Location of schools by buildings, 1890-'91.

Grades.	White.					Colored.					Grand total.
	Anacostia.	Benning.	Giesboro.	Good Hope.	Total.	Birney and Hillsdale.	Garfield.	Benning Road.	Burrville.	Total.	
First .....	*1				1	*1	*1			2	3
Second.....	1				1	1	1			2	3
Third.....	1				1	1				1	2
Fourth .....	1				1	1				1	2
Fifth .....	2				2	1				1	3
Sixth .....	1				1	1				1	2
First and second.....		1			1			1		1	2
First, second, and third .....			1		1						1
First, second, third, fourth, and fifth .....									1	1	1
First, second, third, fourth, fifth, and sixth .....				1	1						1
Second and third .....								1		1	1
Third and fourth .....							1			1	1
Third, fourth, and fifth .....		1			1						1
Fourth, fifth, sixth, and seventh .....			1		1			1		1	2
Fifth, sixth, seventh, and eighth .....							1			1	1
Sixth, seventh, and eighth .....		1			1						1
Seventh and eighth.....	1				1	1				1	2
Total .....	8	3	2	1	14	7	1	3	1	15	29

\* Double schools.

NEW SCHOOLS.

In October, 1890, two new schools, one at the Birney and one at the old Masonic Hall, were opened, both of the first grade.

In September, 1891, we occupied the Van Buren school, the old building becoming the annex. The seventh and eighth grade school in the former building was divided and of it separate schools formed. A new first grade at the same point and a new first grade at the Birney were also made. The pupils of the first six grades at the Van Buren school living at the German Orphan Asylum and east of there were sent to the Good Hope building, and a new school created, resulting in doubling the benefit to the Good Hope school, each teacher having but three grades to handle instead of six, as before. The Tyler and Cranch buildings, with fifteen schools, also became part of this division.

In October, 1891, a new fifth grade was opened in the Tyler school.

For the past year then the grades and locations of the schools have been as shown in Table II, which follows:



TABLE II.—Location of schools by buildings, 1891-'92.

Grade.	White.							Colored.					Grand total.
	Tyler.	Cranch.	Van Buren and annex.	Benning.	Giesboro.	Good Hope.	Total.	Birney and Hillsdale.	Garfield.	Benning Road.	Burrville.	Total.	
First .....	2	1	1				4	*1	*1			2	6
Second .....		3	1				4	2	1			3	7
Third .....	1	2	1				4	1	1	1		3	7
Fourth .....	1	1	1				3	1				1	4
Fifth .....	2		2				4	1				1	5
Sixth .....	1		1				2	1				1	3
Seventh .....	1		1				2						2
Eighth .....	1		1				2						2
First and second .....			1	1			2			1		1	3
First, second, and third .....					1	1	2						2
First, second, third, and fourth .....											1	1	1
Third, fourth, and fifth .....				1			1						1
Fourth, fifth, and sixth .....						1	1		1	1		2	3
Fourth, fifth, sixth, and seventh .....					1		1						1
Sixth, seventh, and eighth .....				1			1						1
Seventh and eighth .....								1				1	1
Total .....	9	7	10	3	2	2	33	8	4	3	1	16	49

\* Double schools.

Tables III and IV are of interest mainly to the teachers and are intended to be of assistance to them.

TABLE III.—Attendance, etc., by buildings (white).

## TYLER.

Month.	Whole number of pupils enrolled.	Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Cases of corporal punishment.	Pupils to a school.	
								Based on whole enrollment.	Based on average enrollment.
September .....	480	441	429	97.4	9	3	.....	53.3	49.0
October .....	488	467	441	94.2	9	16	.....	54.2	51.8
November .....	463	447	413	92.5	9	4	.....	51.4	49.6
December .....	451	421	376	89.3	9	20	.....	50.1	46.7
January .....	453	407	351	86.0	9	21	.....	50.3	45.2
February .....	446	412	375	90.9	9	17	.....	49.5	45.7
March .....	423	400	358	89.4	9	16	.....	47.0	44.4
April .....	417	404	364	90.1	9	8	.....	46.3	44.8
May .....	412	384	345	89.9	9	5	.....	45.7	42.6
June .....	383	373	347	93.0	9	2	.....	42.5	41.4

TABLE III.—Attendance, etc., by buildings (white)—Continued.

## CRANCH.

Month.	Whole number of pupils enrolled.	Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Cases of corporal punishment.	Pupils to a school.	
								Based on whole enrollment.	Based on average enrollment.
September .....	328	302	298	98.0	6	.....	.....	54.6	50.3
October.....	326	307	295	96.0	6	2	.....	54.3	51.1
November .....	372	358	329	94.7	7	6	.....	53.1	51.1
December.....	375	349	329	94.2	7	4	.....	53.5	49.8
January .....	371	330	301	91.0	7	10	.....	53.0	47.1
February .....	367	343	324	94.4	7	1	.....	52.4	49.0
March .....	365	338	313	92.6	7	8	.....	52.1	48.4
April .....	355	340	319	93.6	7	4	.....	50.7	48.5
May .....	349	328	309	93.9	7	2	.....	49.6	46.8
June.....	329	321	305	95.1	7	2	.....	47.0	45.8

## VAN BUREN AND ANNEX.

September .....	417	379	366	96.5	10	14	.....	41.7	37.9
October.....	450	413	387	93.5	10	49	.....	45.0	41.3
November .....	442	427	399	93.5	10	40	.....	44.2	42.7
December.....	431	417	378	90.5	10	31	6	43.1	41.7
January .....	429	384	335	87.1	10	59	.....	42.9	38.4
February .....	414	363	334	92.1	10	36	1	41.4	36.3
March .....	407	363	329	90.6	10	22	6	40.7	36.3
April .....	403	368	327	89.0	10	28	1	40.3	36.8
May .....	383	352	316	89.7	10	6	1	38.3	35.2
June .....	355	331	314	93.1	10	4	2	35.5	33.1

## BENNING.

September .....	127	125	119	95.6	3	.....	.....	42.3	41.6
October.....	137	126	113	89.6	3	30	.....	45.6	42.0
November .....	129	121	107	88.7	3	29	.....	43.0	40.3
December.....	128	124	109	88.0	3	8	.....	42.6	41.3
January .....	130	114	92	89.9	3	42	.....	43.3	38.0
February .....	126	116	112	87.5	3	30	.....	42.0	38.6
March .....	120	112	94	84.2	3	10	.....	40.0	37.3
April .....	121	118	100	84.4	3	17	.....	40.3	36.0
May.....	121	109	93	85.9	3	22	.....	40.3	36.3
June .....	114	104	94	89.7	3	6	.....	38.0	34.6

TABLE III.—Attendance, etc., by buildings (white)—Continued.

## GIESBORO.

Month.	Whole number of pupils enrolled.	Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Cases of corporal punishment.	Pupils to a school.	
								Based on whole enrollment.	Based on average enrollment.
September .....	97	88	85	96.5	2	1	.....	48.5	44.0
October .....	96	91	82	90.5	2	8	.....	48.0	45.5
November .....	95	89	80	90.4	2	4	.....	47.5	44.5
December .....	90	88	79	89.3	2	6	.....	45.0	44.0
January .....	91	81	70	87.1	2	6	.....	45.5	40.5
February .....	89	86	78	90.5	2	4	1	44.5	43.0
March .....	89	82	73	88.2	2	1	.....	44.5	41.0
April .....	83	77	67	87.1	2	2	.....	41.5	38.5
May .....	79	70	64	91.4	2	2	.....	39.5	35.0
June .....	70	65	61	93.9	2	3	.....	35.0	32.5

## GOOD HOPE.

September .....	81	75	72	95.8	2	.....	.....	40.5	37.5
October .....	82	76	71	92.4	2	.....	.....	41.0	38.0
November .....	75	77	71	92.2	2	.....	.....	37.5	38.5
December .....	78	65	58	91.2	2	5	.....	39.0	32.5
January .....	74	65	50	84.0	2	.....	.....	37.0	32.5
February .....	81	68	60	88.2	2	.....	.....	40.5	34.0
March .....	78	47	38	80.9	2	.....	.....	39.0	23.5
April .....	80	72	63	86.7	2	.....	.....	40.0	36.0
May .....	77	71	63	88.5	2	.....	.....	38.5	35.5
June .....	73	70	63	90.4	2	.....	.....	36.5	35.0

TABLE IV.—Attendance, etc., by buildings (colored).

## BIRNEY AND HILLSDALE.

September .....	350	335	328	97.9	8	6	.....	43.7	41.8
October .....	429	393	363	92.1	9	39	1	47.6	43.6
November .....	377	342	304	88.8	9	47	.....	41.8	38.0
December .....	360	342	297	86.9	9	44	1	40.0	38.0
January .....	362	315	261	82.7	9	78	.....	40.2	35.0
February .....	371	309	273	88.5	9	37	1	41.2	34.3
March .....	330	295	255	86.2	9	36	1	36.6	32.7
April .....	322	304	276	90.8	9	37	.....	35.7	33.7
May .....	291	296	272	93.2	9	50	.....	32.3	32.8
June .....	291	277	259	93.3	9	19	.....	32.3	30.7



TABLE IV.—Attendance, etc., by buildings (colored)—Continued.

GARFIELD.

Month.	Whole number of pupils enrolled.	Average number of pupils enrolled.	Average number of pupils in daily attendance.	Percentage of attendance.	Schools.	Cases of tardiness.	Cases of corporal punishment.	Pupils to a school.	
								Based on whole enrollment.	Based on average enrollment.
September.....	210	187	172	97.9	4	.....	.....	52.5	46.7
October.....	245	212	192	90.6	5	23	4	49.2	42.4
November.....	219	182	100	87.9	5	13	.....	43.8	36.4
December.....	189	171	146	85.4	5	14	.....	37.8	34.2
January.....	198	159	126	78.8	5	53	1	39.6	31.8
February.....	154	130	105	81.1	5	28	1	30.8	26.0
March.....	146	126	100	79.9	5	32	.....	29.2	25.2
April.....	143	124	102	81.9	5	23	.....	28.6	24.8
May.....	144	131	112	85.6	5	14	.....	28.8	26.2
June.....	130	121	102	84.3	5	7	.....	26.0	24.2

BENNING ROAD.

September.....	113	99	94	94.9	3	3	.....	37.6	33.0
October.....	128	113	102	90.6	3	44	.....	42.6	37.6
November.....	120	115	103	89.3	3	33	.....	40.0	38.3
December.....	122	104	84	80.7	3	21	.....	40.6	34.6
January.....	127	104	81	78.2	3	70	.....	42.3	34.6
February.....	127	125	109	86.8	3	58	.....	42.3	41.6
March.....	127	106	85	80.1	3	55	.....	42.3	35.3
April.....	116	97	81	81.7	3	32	.....	38.6	32.3
May.....	103	87	68	78.7	3	19	.....	34.3	29.0
June.....	91	74	60	8.05	3	8	.....	30.3	23.6

BURRVILLE.

September.....	53	52	51	98.3	1	4	.....	53.0	52.0
October.....	57	45	44	97.2	1	8	.....	57.0	45.1
November.....	53	47	44	94.1	1	11	.....	53.0	46.8
December.....	54	51	47	92.0	1	7	.....	54.0	51.3
January.....	51	47	43	91.1	1	19	.....	51.0	46.9
February.....	47	44	43	96.3	1	6	.....	47.0	44.3
March.....	46	46	44	95.0	1	7	.....	46.0	46.0
April.....	49	47	41	88.9	1	18	1	49.0	46.5
May.....	52	47	37	79.4	1	13	.....	52.0	46.7
June.....	50	45	36	80.1	1	5	.....	50.0	45.0

It will be seen in Table V that the highest and lowest numbers of pupils enrolled were, respectively, white, 1,579; colored, 860; total, 2,439;—white, 1,324; colored, 562; total, 1,886, the highest in October, excepting in two buildings as shown in Table III, and the lowest invariably in June. There were no cases of dismissal in the division.

TABLE V.—*Showing attendance, etc., by months.*

## WHITE.

Months.	Whole number of pupils enrolled.	Average number of pupils enrolled.	Average number of pupils in daily attendance.	Per centage of attendance.	Schools.	Cases of tardiness.	Cases of corporal punishment.	Pupils to a school.	
								Based on whole enrollment.	Based on average enrollment.
September .....	1,530	1,379	1,370	97.1	32	18	.....	47.8	43.9
October .....	1,579	1,481	1,388	93.7	32	105	.....	49.3	46.2
November .....	1,576	1,518	1,410	92.2	33	83	.....	47.7	46.0
December .....	1,553	1,462	1,427	90.8	33	74	6	47.0	44.3
January .....	1,548	1,380	1,198	87.2	33	138	.....	46.9	41.8
February .....	1,523	1,388	1,283	91.7	33	88	2	46.1	42.0
March .....	1,482	1,342	1,205	89.8	33	57	6	44.9	40.6
April .....	1,459	1,379	1,239	89.9	33	59	1	44.2	42.0
May .....	1,421	1,314	1,187	90.5	33	37	1	43.0	39.8
June .....	1,324	1,264	1,184	93.2	33	17	2	40.1	38.3

## COLORED.

September .....	726	673	644	95.7	16	13	.....	45.3	42.0
October .....	860	763	702	91.8	18	114	5	47.7	42.3
November .....	769	686	611	89.0	18	104	.....	42.7	38.1
December .....	725	668	574	85.9	18	86	1	40.2	37.0
January .....	738	625	511	81.6	18	220	1	41.0	34.7
February .....	699	608	530	87.1	18	129	2	38.8	33.7
March .....	649	573	483	84.4	18	130	1	36.0	31.8
April .....	630	572	500	87.1	18	110	1	35.0	31.7
May .....	590	560	489	88.0	18	96	.....	32.7	31.1
June .....	562	518	556	88.3	18	39	.....	31.2	28.7

## TOTALS.

September .....	2,256	2,052	2,014	96.6	48	31	.....	47.0	42.7
October .....	2,439	2,244	2,090	93.0	50	219	5	48.7	44.8
November .....	2,345	2,204	2,021	91.2	51	187	.....	45.9	43.2
December .....	2,208	2,130	2,001	89.3	51	160	7	43.4	41.7
January .....	2,286	2,005	1,709	86.0	51	358	1	44.8	39.3
February .....	2,222	1,996	1,813	90.3	51	217	4	43.5	39.1
March .....	2,131	1,915	1,688	88.2	51	187	7	41.7	37.5
April .....	2,089	1,951	1,739	89.1	51	160	2	40.9	38.2
May .....	2,011	1,874	1,676	89.8	51	133	1	39.4	36.7
June .....	1,886	1,782	1,740	91.7	51	56	2	36.9	34.9

## IRREGULARITY OF ATTENDANCE.

I wish to call your attention here to a few figures that illustrate, the extreme though it may be, but what is nevertheless a serious evil in the management of many of the colored schools, the great fluctuation in the enrollment and average attendance, necessitating at times an expansion of the number of schools which is not warranted by the facts obtaining for a large part of the year.

TABLE VI.—*Illustrating fluctuations in enrollment and daily attendance.*

Months.	Birney school.		Garfield school.		Months.	Birney school.		Garfield school.	
	Whole number of pupils enrolled.	Average number in daily attendance.	Whole number of pupils enrolled.	Average number in daily attendance.		Whole number of pupils enrolled.	Average number in daily attendance.	Whole number of pupils enrolled.	Average number in daily attendance.
September .....	123	117	58	39	February .....	112	61	106	24
October .....	135	110	68	61	March .....	77	43	35	20
November .....	100	73	88	47	April .....	72	62	38	24
December .....	94	78	66	49	May .....	75	69	42	31
January .....	93	58	66	31	June .....	70	64	37	31

It will be seen in the above table that the first grade at the Birney school had an enrollment of 135 in October and but 70 in June, and that the first grade at the Garfield school had 88 pupils in November, but only 35 in March and 37 in June. Careful and repeated investigation satisfies me that the fault lies largely in the parent's detaining his children for trivial reasons, and so encouraging them to absent themselves without permission for less important reasons—for no reason whatever. As I have studied this question, I have also seen that some teachers are more seriously affected by the fault than others; that of two teachers similarly situated one will have a better attendance than the other, for the reason that she makes school life attractive, as evidenced by the bright, cheerful countenances of her pupils, contrasting strongly against the dull, listless looks of her neighbor's children.

TABLE VII.—*Showing the condition of buildings.*

Building.	How heated.	Light.	Ventilation.	Water-closets.	Play rooms.	Yards.
Tyler .....	Furnace ...	Excellent.	Excellent.	Excellent.	Excellent.	Small.
Cranch .....	Steam .....	Good <i>a</i> ....	None .....	Fair .....	Fair .....	Small.
Van Buren .....	Furnace ...	Excellent.	Excellent.	Excellent.	Excellent.	Excellent.
Van Buren annex .....	Stoves .....	Fair <i>b</i> ....	Poor .....	Poor .....	None .....	Excellent.
Birney .....	Stoves .....	Excellent.	Good .....	Good .....	None .....	Excellent.
Hillsdale .....	Stoves .....	Poor <i>c</i> ....	None .....	Poor .....	None .....	Poor.
Giesboro .....	Stoves .....	Poor .....	None .....	Good .....	None .....	Excellent.
Garfield .....	Stoves .....	Poor .....	None .....	Good .....	None .....	Excellent.
Good Hope .....	Stoves .....	Excellent.	Good .....	Good .....	None .....	Poor.
Benning road .....	Stoves .....	Excellent.	Good .....	Fair .....	None .....	Fair.
Benning road annex .....	Stoves .....	Poor .....	Poor .....	Fair .....	None .....	Fair.
Benning .....	Stoves .....	Excellent.	Poor .....	Good .....	None .....	Excellent.
Burrville .....	Stoves .....	Poor .....	Good .....	Good .....	None .....	Fair.
Anacostia road <i>d</i> .....	Stoves .....	Excellent.	Poor .....	Poor .....	None .....	Excellent.

*a* Excepting two third-floor rooms, where the light is very poor.

*b* Excepting three rooms, in which the light is good.

*c* Excepting three rooms, in which the light is fair.

*d* Unoccupied.



All of these buildings are owned by the District. Taken all in all the Cranch school is a building that should give place to an eight-room house. None of it is fit for occupancy, yet it has been necessary to put two schools in the third-floor rooms, where, added to no ventilation and difficulty of heating, the light is execrable. It seems probable that there must be next year three schools, or more than 150 children put into these same rooms; nine schools will probably be housed in the building.

I must strongly urge, preferably the displacement of the Cranch by a new house, otherwise, that a building should be built north and east of that.

#### SHADE TREES.

A number of play grounds would be much improved by the planting of shade trees along or near the fences; the Van Buren and annex, the Birney, the Garfield, the Good Hope, and in the rear of the Tyler. Trees are also needed along the curb in front of the Birney and Hillsdale schools, and in front of the Van Buren building, and the annex.

#### FREE TEXT-BOOKS.

That text-books are free seems to be the principal cause for the unusual percentage of increase in the enrollment. To make a comparison, we can speak only of the schools east of the Anacostia river, since the schools of the Tyler and Cranch were not in my charge last year.

In October last, the schools east of the river showed increases as compared with the same month of the preceding year, as follows: as a whole 11.9+ per cent, the white schools 14.2+ per cent, the colored schools 9.6+ per cent, and Anacostia and Good Hope 18.5 per cent. This increased enrollment at Anacostia appears to be mainly due to three causes: the great growth of the village, the improved school facilities, and the cessation of the sending of children to the city schools. But the following figures more exactly show the effect of making text-books free; they are the whole enrollment less transfers in the first four grades alone, the grades where books have been furnished free: white, 543 in 1890-'91, and 581 in 1891-'92, an increase of 7 per cent; colored, 622 in 1890-'91, and 635 in 1891-'92, an increase of 2 per cent.

#### COURSE OF STUDY.

Permit me to report the course of study comprehensively and briefly. I believe the teachers have never done a better and more conscientious year's work than that just finished. I wish to say that in this connection Miss L. A. Denney has been of material assistance in the first three grades, reading, composition, and number work showing much improvement over the preceding year. The time has gone by when as good work should not be expected from "the county" as from the city schools. Let the facilities be the same (thanks to you and the board they are

rapidly becoming so) and there is no good reason why as good work should not be done. The fact is that I have seen some work in the outlying schools that I have failed to find surpassed in town. Some of the defects which we are working to correct are lack of expression in reading, incorrect position in standing and carriage in walking, and inability to explain at all the meaning of words; but the one great defect in our teaching, I would say, is the failure of the teacher to have a definite purpose in giving a lesson and the failure to realize that purpose.

In the schools of more than one grade taught by one teacher, the work has been improved by the abandonment of the strict gradation of pupils—that is, instead of classing a pupil as in the fourth grade, for instance, in all his studies, he may be put with the fifth grade in language, the sixth in number, and with the fourth in all other work. This plan has resulted in a benefit in several directions. By it the individual child gets just what he needs in each subject; he works at his learning point; the number of classes in the school is reduced, and the teacher is enabled to devote more time to the respective classes. This result has been obtained in nearly all schools of mixed grades, the only apparent obstacle in the minds of one or two teachers being an old idea that their salaries depend on the number of pupils in their highest grade.

Rapid progress and surprising development have been shown in carpentry at all of the four schools, but it must be said with candor that the greatest degree of improvement has been observed in the colored schools. In sewing, the white schools I believe have done better. Query: Why this apparent difference? The question, I believe, is easily answered. In each case the better results were apparent where the regular teachers more actively coöperated with the special teachers. All do coöperate, but in greater or less degree. This statement is generally true: The success of the special teacher is largely in the hands of the regular teacher. In carpentry, the colored teachers have exercised a supervision over their schools while they were at the bench, the pupils being made to feel that in conduct, at least, they were held accountable to their daily teacher. In sewing, most of the white schools have had the advantage of the assistance of their regular teachers.

Cooking has also been successfully taught, and that it is appreciated is evidenced by the interest of the pupils and the frequent expressions of indorsement coming from both their parents and themselves. Very little is now heard of the old objection, the expense of the recipes. As one gentleman put it—"They are taught to make something out of nothing." Certainly the nearer we approach to this impossible the better will the public need be met.

I wish to urge the extension of manual training beyond what is embraced in the present course of study, especially for the colored schools. My experience seems to indicate that, to colored children in particular,



the advantage of being taught to use their hands, and through them their heads, is inestimable. Speaking of the schools east of the river, the relation of the number of white schools of the first four grades (Table II) is to the whole number of white schools as 4 to 17, while the ratio of the number of colored schools, taken in the same manner, is as 11 to 18. To this fact put what I have shown in Table VI and it is evident that all possible must be done for these children in a very limited time.

#### NIGHT SCHOOLS.

The night school at Hillsdale has been doing a good work, though it is to be regretted that the opportunity for improvement is not accepted by more of the large number who could be benefited. It is my opinion that such schools should be opened in the Van Buren and Benning Road schools.

#### CONCLUSION.

Thus far, nothing has been said of the teachers, yet it must be borne in mind that they have done the work, and that without their hearty coöperation nothing could have been accomplished. I wish to testify to their uniform courtesy, for, without exception of person or instance, suggestions and criticisms have been received in the spirit in which they were offered: the spirit of personal helpfulness and improvement of the schools.

I am indebted to Mr. J. W. Whelpley, Dr. A. H. Witmer, and Dr. F. J. Shadd, trustees, for their active interest in the work, and especially to you for personal kindness and invaluable professional counsel and assistance.

Very respectfully,

JOHN T. FREEMAN,  
*Supervising Principal.*

Mr. W. B. POWELL,  
*Superintendent of Public Schools.*

#### CENTRAL HIGH SCHOOL.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit herewith a report of the High School for the year ending June 30, 1892.

#### *Numbers and attendance.*

Number of pupils readmitted from previous year.....	550
Number admitted at the beginning of the year.....	436
Number subsequently admitted.....	39
Number of withdrawals.....	211
Number at close of the year.....	799
Whole number enrolled (girls, 644; boys, 381).....	1,025
Average number enrolled.....	936.6
Average number in daily attendance.....	864.1
Percentage of attendance.....	94.6



Year 1891-'92.

Months.	Average enrollment.	Average attendance.	Per cent- age.
September .....	946.3	935.5	98.8
October .....	998.9	966.6	96.7
November .....	968.6	934.9	95.9
December .....	900.4	891.6	93.5
January .....	929.7	847.9	91.3
February .....	907.2	852.6	93.9
March .....	884.4	826	93.3
April .....	852.6	806.3	94.8
May .....	838.8	795.6	94.4
June .....	806.9	763	93.8

Table showing growth of the school.

Years.	Number of teachers.	Average enrollment.	Years.	Number of teachers.	Average enrollment.
1882-'83 .....	11	367	1887-'88 .....	30	913
1883-'84 .....	13	486	1888-'89 .....	33	1,107
1884-'85 .....	20	598	1889-'90 .....	41	1,274
1885-'86 .....	24	688	1890-'91* .....	36	1,001
1886-'87 .....	28	775	1891-'92 .....	37	937

\* Decrease accounted for by establishment of branches at Georgetown and Capitol Hill.

Statistics of attendance 1891-'92.

Year opened with enrollment of .....	986
Maximum enrollment (October) .....	1,004
Close of year (June) .....	799
Average enrollment .....	936.6
Approximate ratio, boys to girls .....	1 to 2
Average percentage of attendance .....	94.6

Miscellaneous statistics.

Number of graduates:		Number of graduates:	
1882-'83 .....	26	1890-'91 .....	205
1883-'84 .....	51	1891-'92 .....	206
1884-'85 .....	139	Number in the different courses in	
1885-'86 .....	179	1891-'92:	
1886-'87 .....	190	Academic .....	596
1887-'88 .....	207	Scientific .....	429
1888-'89 .....	222		
1889-'90 .....	289	Total .....	1,025

#### BUILDINGS AND ACCOMMODATIONS.

Under this head in the last report the following statement was made:

For the coming year it is hoped that provision may be made for placing in appropriate cases the museum, which for a number of years has been stored in such a manner as to make it of little service, except to the teacher.

It is to be regretted that lack of money made it impossible to carry out this suggestion. The collections have therefore once more necessarily been kept under lock and key for the past year, almost totally destroying their use to pupils.

With the introduction of zoölogy for first-year students, at the opening of the new year, it will be imperative to provide facilities for the new laboratory work and cases for the museum.

The lack of a gymnasium for the physical training of girls, which has heretofore existed, has been overcome by the appointment of Miss Gwyneth King as "health teacher," and the use of the armory, in the wing basement, for the physical-culture classes.

The physical laboratory, a room 28 feet square, has been found inadequate to the number of pupils and the proper method of study; it is therefore proposed to devote the physical-lecture room to laboratory purposes. This will afford for 1892-'93 ample opportunity for individual work for all students of physics.

#### INSTRUCTION.

The school comprises an academic and scientific course; the curriculum includes, primarily, "such studies as tend to make intelligent men and women and good citizens;" the academic department prepares for the academic work of college and young ladies for the work of teaching; the scientific department prepares for the scientific work of college and technical schools, and young ladies for the work of teaching.

The aim of the school is "to stimulate intellectual life and to train the mind to right methods of action."

The departmental plan of instruction is pursued, most teachers having but one branch of study.

*Courses of study outlined.*

Year.	Academic.	Scientific.
First .....	English. History. Algebra. Latin. Physiology. Physical geography. } Lectures.	English. History. Algebra. German. Physiology. Physical geography. } Lectures.
Second .....	English (half year). History (half year). Geometry. <i>Greek.</i> Latin. Physics or chemistry.	English (half year). History (half year). Geometry.  German. Physics or chemistry.
Third .....	<i>Trigonometry and surveying, or history.</i> Latin. English. <i>German.</i> <i>Botany or chemistry and mineralogy—</i> <i>or advanced physics.</i> <i>Political economy.</i>	<i>Trigonometry and surveying, or history.</i> German. English. <i>Botany or chemistry and mineralogy—</i> <i>or advanced physics.</i> <i>Political economy.</i>

Elective studies are printed in italics; all others are prescribed.

Drawing is required in all the courses. A general exercise in music is optional.

Military and calisthenic drills conducted under the same regulations as during the past year.

Manual training for pupils of both sexes throughout each course is optional.

Not more than four studies may be pursued at one time.

Candidates for diplomas must pursue all the prescribed studies and at least three studies in the third year. Students who, from any cause, fail to meet this requirement are enrolled as "unclassified" and can not graduate until the prescribed work is satisfactorily made up.

Pupils who desire to prepare for college can make special arrangements of their courses upon written application to the principal.

Greek, which, when first introduced, was offered as an elective to only third-year students, was last year also studied by those of the second-year class who desired to prepare for college.

The first-year lectures in physiology and physical geography have been supplemented by recitations or "quizzes" given each alternate week, at which the information imparted in the lectures has been fastened in the mind of the student, additional information given, inquiries answered, original thought and deductions stimulated or specimens compared or studied under the microscope.

This method has, to a certain degree, overcome the objection to the lecture plan for young students. It is deemed wise to discontinue such instruction, replacing it by laboratory study in zoölogy. This branch properly presented, even if less time can be accorded to it, will develop observation, comparison, and scientific conclusion to a far greater extent than any course of science lectures. Beside the training and mental vigor that will be produced, it is believed that it will implant broadly a love for science and scientific methods.



## FOUR YEAR COURSE.

The school has reached a period in its development when it is possible for the trustees to extend its advantages by broadening the course to four years.

This will make it possible to put the school, in two years' time, upon a par with the best secondary schools in the country.

By far the largest number of graduates of the school do not continue their education beyond the High School. For them a better education will be afforded, with an opportunity from the various electives to choose branches of practical importance to them in their plans for life.

Those who are to become teachers will go to the Normal School with a year more development, maturity and culture.

The steadily increasing number who enter college and technical schools will do so without private tutoring and extra expense, which will do a great deal to increase the number of those who will continue their education after leaving school.

In a year or two it will be evident that the wise policy of the superintendent and the trustees has served to elevate the whole system of public education.

The whole community may well be thankful that this development has seen its dawn.

The Senate investigation instigated by Harvard College has, without doubt, caused such an expression of public sentiment as has materially expedited the favorable decision of the High School committee.

The attitude of the District Committee throughout the examination has been friendly to the school and its interests. Their report, stating without prejudice the limitation of the past, urges upon all connected with the District schools to assist in placing the institution in the very front rank of secondary schools.

It is hoped that the powerful recommendations of the Senate subcommittee will meet with a cordial reception at the hands of the Appropriation Committee when the estimates receive their consideration for the following year.

## CHEMISTRY.

Number of pupils; second year, 95; third year, 37.

The primary object of this department is to cultivate the power of observation and independent thought, to teach that true study demands the use of reason, not of unaided memory, that science is a structure whose parts are all dependent on each other, not merely a collection of isolated facts.

Every effort is made to train the pupil to observe for himself, to draw his own conclusions, and to arrange the results of his investigation in logical order.

The knowledge of pure chemistry to be obtained by this course is considered as secondary to the mental discipline, yet its importance is not to be ignored. Perhaps no other study can be introduced into a high-school curriculum which will bring the pupil into so strange a world, or introduce to him so many new ideas. Certainly no other subject is more inaccessible to him whose information is drawn from popular sources.

The work of the department occupies two years of five hours a week. During the first year of the course two hours are spent in the laboratory, two in recitation, and one in lecture. The first four months of the year are devoted to general chemistry. The metals are then taken up in recitation and in lecture, and an introduction to qualitative analysis is given in the laboratory. At the close of the year some attention is given to the elementary principles and most important compounds of organic chemistry.

In the second year of the course qualitative analysis occupies four hours a week. A thorough course in the separation of mixed solutions, in which chemical manipulation is made a prominent feature, is given. Special attention is also given to dry reactions, and in this connection a brief introduction to determinative mineralogy is offered.

The other hour might profitably be set apart for the presentation of papers by the pupils on the more important processes of industrial chemistry. The lack of reference books, however, makes this valuable exercise impossible, and the hour has been used for a quiz, lecture, or such other exercise as the progress of the class seemed to demand. A brief course in quantitative analysis is offered to a limited number.

Throughout the course special emphasis is given to laboratory work. The recitations on lessons assigned from the text-book and the lectures are conducted as far as possible with reference to the observations which have been made in the laboratory.

While only elementary work can be presented to high-school pupils, our laboratory facilities are such as to enable us to make the work in every sense scientific.

#### DRAWING.

This subject is so important that all pupils in the school are required to take the lessons at least one hour a week. There is no complaint to make in regard to the interest shown.

In the first year the pupils have studied geometrical problems, including ellipses and geometrical designs, for the benefit received by a training in careful work, while in free-hand work they have drawn groups of models and flowers.

In the second year the geometrical work consisted of an alphabet of Roman letters and the study of orthographic projections; the freehand work of drawing groups of models and flowers, using charcoal instead of pencil.



The third-year work was a short review of the orthographic projections and the study of mechanical perspective, and sketches of groups of school-room objects and corners of the drawing room.

There have been, as usual for the pupils who have a special interest in the study of drawing, what are called special classes, and as two hours a week are devoted to the work it is much more advanced than in the regular classes, the only differences being the introduction of work in clay in the first-year special class, and the election for those who wish it of a course in painting in the third-year class. In this class they have painted directly from objects, and have shown the greatest possible interest and enthusiasm.

#### ENGLISH.

Number of pupils: first year, 435; second year, 260; third year, 435; total, 951.

In making English a required study for all pupils of the school, the course has, since the school year 1889-'90, provided for the pursuit of the studies in this department by each pupil during two and one-half years. That the importance of an English education is such as to render this plan highly desirable we believe to have been fully established by the results of the innovation. The energies of teachers and pupils have been directed especially to cultivation of the pupil's power of oral and written expression, rather than to the study of literature, literary biography, or the history of literature. Of course, by this it is not meant that these latter branches of English study are neglected, but that they are made subservient and auxiliary to the more important work of personal development. That further advance in this direction is advisable seems almost beyond question. While pupils may be trained primarily, through constant practice in the various kinds of composition, to attain some degree of fluency in the use of clear, correct and effective language, they may, at the same time acquire, in addition to the mere knowledge of the history of literature, an intelligent and loving appreciation of the works of the best writers. The two branches of English study—composition and study of literature—are mutually assistant.

The following summary of the course of study will be best understood by constant reference to the subjoined tabular statement:

In the first-year class the first quarter was devoted to instruction in composition, embracing structure (or outlining) and expression. The forms of composition studied, both in principle and practice, were description, narration, exposition, and comparison.

The second-quarter work in American literature and the third and fourth quarters in English literature are found subdivided below. The main part of the work in literature was the study of eight literary masterpieces selected from the works of representative authors. In the class-work secondary attention was given to the period of literature



represented by each author under consideration, and to the various works of the author, while for the basis of the historical and biographical portions of the study in the two literatures, the pupils provided themselves with the outline synopsis prepared by the head English teacher, Mr. G. J. Smith.

The special study of each work selected was directed toward implanting an appreciation of good literature and influencing for the better the pupil's own power of expression. In realizing these purposes the school library has proved an efficient aid.

The second-year work covered but half the year. The first quarter included from three to four weeks given to theory and practice of argumentative composition; three weeks to the study of Addison's *Sir Roger de Coverly Papers*, and an equal period to Pope or Milton. The second quarter introduced the study of Shakespeare and his times, the central study of the *Merchant of Venice* being supplemented as indicated below.

We regard it as an advance in teaching composition, that no textbook was used in either first or second year classes, the teachers planning and enlivening the course and making it practice rather than book-work.

The third-year course consisted, logic having been discontinued, first, of a continuation of the study of Shakespeare during the first two quarters, *Hamlet* and *Macbeth* being the plays selected for special study; second, of the study of Bacon and his *Essays*; third, of selections from Chaucer, and fourth, of Milton—*Paradise Lost*, Books I and II. Composition received its full share of attention in the third-year classes, both in oral exercises and in numerous essays and papers prepared on subjects connected with the study of the literature.

*Schedule of English work, 1891-'92.*

Quarters.	First year.	Second year.	Third year.
First .....	Elements of composition. Simpler principles of rhetoric applied in abundant written work, in descriptions, narrations, expositions, comparisons.	(a) For three weeks, argumentative composition, analysis, kinds of proof, refutation, and arrangement of arguments. (b) Continuation of English literature: (1) Addison and Steele, <i>Sir Roger de Coverly Papers</i> . (2) Pope, <i>Essay on Man</i> .	Hamlet, with a thorough study of Shakespearean tragedy and of the Elizabethan literature and times, followed in the second quarter by Macbeth. In both quarters collateral reading of other tragedies and of romances was carried on, while advanced written work was developed in the study of characters and of plots, both here and throughout the year.
Second .....	American literature, history, chief names, brief readings. Special selections for study: (a) <i>Irving</i> — <i>Legend of Sleepy Hollow</i> . (b) <i>Longfellow</i> — <i>Tales of a Wayside Inn</i> . (c) <i>Whittier</i> — <i>Snow Bound</i> .	Study of Shakespearean comedy. Play selected for special study, class-reading, criticism, etc., <i>Merchant of Venice</i> ; written composition work required in this connection. Others of Shakespeare's comedies read as collateral work. Attention also given to the Elizabethan period in general.	
Third and Fourth.	Reading of masterpieces of English literature, with work on contemporary literature. Inexpensive editions from various sources used in class work. (a) <i>Tennyson</i> — <i>Elaine</i> . (b) <i>Dickens</i> — <i>Tale of Two Cities</i> . (c) <i>Macaulay</i> — <i>Essay on Warren Hastings</i> . (d) <i>Coleridge</i> — <i>The Ancient Mariner</i> . (e) <i>Goldsmith</i> — <i>She Stoops to Conquer</i> . Written work all the year.	(In the second half-year another set of pupils took the same work as above except for the institution of Milton's <i>l'Allegro</i> and <i>Il Penseroso</i> for Pope.	Bacon's <i>Essays</i> , selected, studied five to six weeks, followed by Chaucer's Prologue to the <i>Canterbury Tales</i> . The usual study of contemporaries. Chaucer's <i>Nonne Prestes Tale</i> , followed by study of Books I and II of <i>Paradise Lost</i> .

## GERMAN.

Number of pupils: first year, 123; second year, 114; third year, 175; total, 412.

During the school year 1891-'92, as in former years, the number of high-school pupils studying German has increased, a fact which proves that our students appreciate more and more the advantages which the study of German affords to the scholar, to the business man, and for general culture.

In the class-room the so-called "natural method" of teaching, with certain modifications, has been employed since the introduction of German as a study in the curriculum of the school, in the fall of 1882. As a rule German is spoken from the very beginning, and grammatical studies are also carried on in the language proper, although the use of English is not banished, translations from German into English and *vice versa* being made whenever necessary. Besides this, reading, writing, and speaking German, as well as original composition, are

practiced. Dr. Wilhelm Bernhardt, the head of the department, is the author of the text-books which have been used in the classes with marked success.

The scientific classes in their three courses have studied in the first year (five hours weekly) Volume I of "Deutsches Sprach-und-Lesebuch," which familiarizes the student with easy descriptive German; one German text (Theo. Storm's "Immensee") has been read. In the second year (four hours weekly) Volume II of "Deutsches Sprach-und-Lesebuch" has been employed to teach the students the narrative style of the language, and several German texts have been read, viz: Rudolf Baumbach's short stories as contained in Volume I of "Im Zwielficht," Hans Christian Andersen's "Bilderbuch ohne Bilder," and also part of Volume II of "Novelletten Bibliothek." Together with this, systematically arranged oral and written translations have been carried on. The third year students (four hours weekly) have reviewed the whole grammar, translated from English into German, and read more advanced German texts, viz: Hodge's "Course in Scientific German," in the boys' classes, while the girls have taken up the reading of Dr. Bernhardt's edition of "Goethe's Meisterwerke."

As in former years, the weekly German lectures have been given to the third year scientific classes. These consist of about half an hour's talk in German by Dr. Bernhardt on the history of German literature, after which the pupils themselves, under the guidance of Frau Hoegelsberger, render a short program, consisting of translations, recitations, and songs.

The academic classes (five hours weekly) with a one year's course, go over the whole ground of the first and second year scientific sections, which is sufficient for entrance to college.

#### GREEK.

The third year Greek class has done excellent work throughout the year, so that it will be quite possible for those of the class who return for the fourth year to finish the work required for college. The class has numbered fifteen; about half its members intend to take the fourth year.

Of the second-year class fourteen are ready for the third year work, and nearly all plan to remain for the fourth year.

No change has been made in number of recitations.

The text-books used are White's First Lessons in Greek, Goodwin's Greek Grammar, and Goodwin's Xenophon's Anabasis (latest edition). The time given is four recitations a week for the second year and five for the third year.

It will be possible with the additional year to read all that is required for admission to college.



## HISTORY.

First-year class: The use of the new texts, Myer's History of the Eastern Nations and Greece and Allen's History of the Roman People, has confirmed the wisdom of the introduction of better books than were employed previous to the summer of 1890. The wide scope of the texts has tended to develop a broader view of the field of history than was formerly attained. Each book is used about two quarters.

Third-year class: As in the case of the first year work, the change of text book has proven a wise one, as is shown by the increased interest in the subject. The number of pupils taking the study was nearly double that of last year. The work has been conducted on the same general plan as that of the previous year, the effort being to get into the philosophy of history as much as possible.

## ENGLISH HISTORY.

The work in English history the present year has covered the usual ground, beginning with Prehistoric Britain and coming down to the present reign. The restrictions due to the inadequate time allotted to the study have been attended with the usual imperfect results.

The substitution of Montgomery's Leading Facts of English History for the present text book is recommended as being more concise and presenting a clearer bird's-eye view of the subject as a whole.

## LATIN.

Number of pupils taking Latin: first year, 281; second year, 173; third year, 143.

The classes in Latin have reached the usual limits and the character of the work has been generally satisfactory.

In the first year some of the teachers have found exercises from Collar's "Gradatim" helpful in arousing enthusiasm and interest and securing greater thoroughness. In the third year, Collar's Latin Composition has been introduced with great advantage.

The advanced class in Latin have read two orations of Cicero and one book of Virgil, and have done some sight reading and composition work.

We believe that a four years' course will not only give us a full preparatory course for college, but will increase the value of the work for every pupil and in each year.

## MANUAL TRAINING.

Number of pupils: first year, 115; second year, 47; third year, 24; total, 186. Of this number seventeen were from the Commercial High School and two from the Capitol Hill High School.

At the beginning of the year an effort was made to increase the time of the third year boys, and accordingly most of them had three and four hours a week. Some few were unable to arrange their recitation programs so as to allow any more time than heretofore, and for them and for the other years the two hours a week schedule obtained.

The plan followed in the high school work is to supplement the course of joint-making, carpentry, and cabinet-making of the seventh and eighth grades of the grammar schools, by courses in drafting and wood-turning in the first year; forging and drafting in the second year; and chipping and filing, iron and steel turning, machine construction, and drafting, in the third year. In the beginning of the work in the school, the fact was recognized that drafting should receive careful consideration; however important that the student should be able to construct from a drawing, it is yet more desirable that he be able to make the drawing, for the logical order and educational sequence is, first, the conception of the form; second, the planning and drawing, and then construction or materialization of the thought. Each year has seen an advance in this line, and this year it has been possible to give the drafting of the first and second years full time and attention. The substantial results obtained were very encouraging. The boys of the first year were carefully grounded in the principle of lettering and of working-drawings, while tracing and blue-printing made the course complete.

At the close of the course work in April, the second-year boys began upon the drawings for their practice work of the senior year. They made very creditable progress. More attention was paid to excellence in quality than to rapidity in execution. Special importance was laid upon the desirability of acquiring skill in free-hand lettering. In neither year was abstract work or geometrical problems taken up except incidentally, but the work was confined strictly to the shop drawings, thus binding together closely the work of the drawing room and shops. It will now be possible properly to systematize the drafting of the third year.

In the wood-turning laboratory the good record made last year was still further improved, for a larger percentage of the boys completed the regular course, and a good showing of spontaneous work was made.

The great advance of the year was made in the work in forging. The course of exercises was rearranged, some eliminations and some additions made, thus increasing its value. The standard of workmanship established by the excellent work done this year will be difficult to excel or maintain, and compares very favorably with that of older and more experienced pupils in other schools.

A better showing has been made by the third year. This is in large measure due to vastly improved materials and to the additional time given. The engine lathe begun last year was, with its countershaft,



nearly completed; a bench emery-grinder was completed, and work for finishing the castings of a hand lathe begun. Several motors of practical design were completed. A fine model of one of the standard 6-inch guns of the Navy, made to scale, was one of the evidences of proficiency.

The success of this branch is manifest on all sides, and perhaps most of all in the earnestness and vigor with which it is pursued. Owing to the limited amount of time spent in the laboratories by each pupil, it is necessary to illustrate by as few exercises as possible the fundamental principles and methods of manipulation, though thereby making impossible the production of many pieces for show.

Nevertheless, as those who are interested in the work and visited the school during the exhibit held at the close of the year can testify, the many fine pieces shown deserved the highest commendation.

#### MUSIC.

There were two classes in music. Each met one hour a week throughout the year. One class was made up of second and third year pupils, a large number of whom had had no instruction in the subject the preceding year, music being an elective study. The other class was attended by pupils from all three grades. On account of these conditions there could be but little difference between the kind of work given the two classes.

The girls of the first year entered the school better prepared for the work than those of the preceding year; but the majority of the boys were not only unfamiliar with musical notation, but were also ignorant of the intervals. It is evident that the boys in the lower schools should receive more instruction in these matters. The general work of the class which these boys attended was materially held back on account of the special training which had to be given to them.

There was, however, a very marked improvement in both classes over the work of last year. Not only was much difficult work studied, but it was rendered in better form than the simple music of the previous year.

The utmost care was exercised in training the pupils to acquire generally correct habits in the use of the voice. Their attention was constantly directed to the quality of tone, at every lesson exercises being given which tend to give to the voice flexibility and smoothness.

The largest share of the time was necessarily spent in teaching the students to read music accurately and to carry the four parts smoothly.

When the classes had been trained down to steady, careful work, other phases of the songs were presented. The character of the music was discussed, the phrasing was carefully marked and attention was directed to the correct pronunciation of the words and to their distinct articulation.



This last phase of the subject, which could be studied only superficially this year, should constitute the characteristic part of the high school course in music. It is to be hoped that in a few years, as more careful attention is given to the subject in the lower schools, the necessity for teaching the reading of music in the high school will disappear.

Immeasurably better training could be given if a regular three years' course in music could be established in the school.

#### NATURAL SCIENCE.

*Botany.*—Number of pupils enrolled, 93.

The third-year work of this department is an elective course in botany, continuing through the year and occupying for each student four hours a week, besides one hour of lecture and one hour of laboratory work.

The work taken up in the four weekly class-hours consists:

(a) Of drill questions, chiefly upon assigned lessons in Gray's Botany, upon previous lectures or upon observations on points examined.

(b) Of examination and descriptions of flowering plants, one hundred such being required in the year. About thirty plants are studied in the fall, others during the winter, and the rest in the spring.

(c) Of examination and drawing of fruits, capsules, wood sections, and other specimens illustrating plant structure.

(d) Of reading and discussion of papers giving results of observations made by students. Papers giving results of reading in botanical literature done by students.

The work taken up in the laboratory hour consists of:

(a) Practice in methods of drying and mounting plants and other herbarium work.

(b) Practice in the use of the compound microscope with studies of the minuter structure of flowers and seeds.

(c) Studies in histological botany, examining unicellular plants and cell tissues, beginning with the yeast-plant and ending with ferns.

The work given in lecture form consists of: (a) Principles of plant morphology; (b) uses of flowers and their products; (c) elements of beauty in nature; (d) trees and shrubbery of Washington; (e) important families of plants; (f) principles of plant histology; (g) laws of plant nature.

The chief recommendation for improvement of this work for the ensuing year is that opportunity be given to such as desire it to continue it the second year; for extension of previous lines of study as revealed by the microscope; using Bower and Vines's Practical Botany, Parts I and II, as published by MacMillan & Co.

*Physiology and physical geography.*—Number of students, 480.

These subjects have required one hour a week from all first-year pupils, used alternately for lecture and for recitation. Part time of four assistant teachers has been used in conducting recitations. Physiology

has occupied the first quarter followed by physical geography in the second quarter.

In consequence of the increased attention now given to both the above subjects in work preparatory to the High School it is recommended for the year ensuing in place of the above lectures to substitute work in zoölogy, using Packard's Shorter Course in Zoölogy, second edition, making use also of specimens as far as possible, and with particular attention to comparative anatomy, by means of daily recitations for one quarter, making the subject rank as a major study.

#### PHYSICAL CULTURE.

Since the best mental advancement can not be made at the expense of the physical organism, the High School has been able to take a progressive step by adding to its curriculum a department of physical culture. Until this year but little in the line of physical training was provided for the High School girls. A few false notions, regarding the propriety and danger of young ladies taking physical exercise, prevailed at first, but these, within a very short time, lessened and soon gave way, and the new feature was generally hailed with pleasure and enthusiasm by the pupils.

The large drill hall in the basement of the building has been used. There being plenty of floor space the classes have in some cases numbered 80, while others were much smaller. No apparatus is used, and the system advocated is that of Americanized Delsarte culture. Delsarte's researches and teachings were related principally to expression and art, but the principles of his work are applied to health promotion, since health is the primary foundation which must underlie all true expression of man. In fact the health part of this work is considered of such importance that the instruction is called "health lessons." Grace is deemed of scarcely less importance, since health and grace are greatly dependent on each other.

Special attention is given to all practical experiments, and the principle is constantly instilled that physical culture is not something to be practiced a few moments certain days and neglected during the remaining hours. To this end the first and most important effort has been to secure a correct standing position for all time, believing that correct physical poise aids in securing the best mental balance and more perfect moral poise.

The young ladies have, during the year, been taken to the exhibition hall, where a lesson was given upon the naturally easy but frequently awkward and heavy manner of rising and sitting. Special lessons have been given in the corridors to secure lightness of movement and correct bearing in walking, others, upon going up and down stairs with ease and economy of force, while correct breathing is a part of every exercise, and some special breathing exercise is given with each lesson. The length of time being so short and there being so much beginning



work necessary this year, very little attention has been given that important part of physical culture—voice training. Beyond its foundation—breathing, and a few vocal exercises with the third-year pupils—nothing has been done in this direction the past year. The general exercises include a series of gymnastics which bring into healthful action every muscle without doing violence to any part of the system. Abnormal muscle exertion is avoided, and normal development secured. It has been extremely gratifying to note the effect, in a few months, upon the general attitude of the girls. The protruding abdomen, and settling on to one hip, so prevalent among school girls, are now rarely seen. In most cases the chest is held higher, while the almost universal habit of holding the head down or forward is beginning to be supplemented by a dignified and erect carriage.

At the May entertainment this department was represented by fifteen young ladies—the stage accommodating no more—in a series of æsthetic gymnastics, accompanied by music, and given in artistic costumes. A number of the exercises were new to them, but their readiness in giving all showed the ease with which complicated and graceful movements may be acquired after a right foundation has been secured. Control was the leading thought and final result.

The High School girls have taken hold of this work earnestly and have been, without exception, urged and aided by the teachers. The health of a few girls has been materially benefited. An undercurrent of improved dress has prevailed in many cases, corsets have been discarded, and, during the winter, the majority of one entire section, without solicitation, appeared in becoming dresses, with waist and skirt made in one, thus allowing free movement at the waist.

The general expression has been a desire and willingness to learn and excel in the art of attaining and retaining health, strength, and grace.

#### PHYSICS.

Number of pupils: Second year, 182; third year, 22; total, 204.

The amount of matter accomplished was less than in any former year.

For the second-year physics class four periods a week were assigned, allotted as follows, from September till March: One period for laboratory work, two periods for recitation in class room, and one period for lecture. From March until the close of school, in June, the boys' sections were the same as those above; the girls' sections had two periods assigned for laboratory, one for recitation and one for lecture.

It was designed to have the laboratory practice precede the matter recited, but this was not possible at all times. In the laboratory those pupils who perform the experiment before reciting on the subject-matter relative to it require more supervision, as they are liable to waste time and to be found at the close of the hour with little or nothing accomplished.



The object of the laboratory teaching has not been to train in manipulation, and the skill acquired is a secondary consideration. The chief purpose is the cultivation of the power of observation to furnish facts adapted for comparison from which deductions and definitions may be made.

For the lecture many sections were united. This exercise is not a lecture in the proper sense. The teacher arranges the apparatus and calls on any pupil to tell what has been done; he then allows the forces to act and again calls on the pupils to state what has happened, and finally gets from the class the conclusions.

The relation between these deductions and previous conclusions are then called for or given by the teacher, as in his judgment is considered best.

The book used was Gage's Introduction to Physical Science; the subjects studied were the introductory mechanics of gases, liquids, solids, and electricity and magnetism.

In the third year five periods per week were assigned. Three periods were devoted to class room and two to laboratory. For the larger part of the class it was possible to obtain two consecutive hours. This was very important.

During the year a couple of telegraph instruments were set up in different rooms to allow pupils, who desired, to practice during the study hours or after school. About one-third of the class have practiced voluntarily for two hours per week.

The laboratory work consisted of more difficult experiments taken from various text-books, the Harvard pamphlet, and other sources.

The subjects of light and sound were studied for the first time; the other portions of Gage's Elements of Physics were reviewed, and Lodge's Mechanics, except parts relating to curvilinear motion, was completed.

The daily weather maps published by the Department of Agriculture were received and often discussed in all classes to interest the pupils. Professors Hazen and Abbe, of the Weather Bureau, kindly consented to lecture upon how the maps are made and the observations upon which predictions are based.

#### POLITICAL ECONOMY AND CIVIL GOVERNMENT.

The year, to the middle of the third quarter, was occupied with the subject of political economy, which was pursued in the same manner as during the preceding year.

The class then took up the study of Fiske's Civil Government in the United States and continued that subject until the close of the fourth quarter. Attention was chiefly drawn to the subjects of local and State governments, in the line of their historical development.

A greater amount of work was done in the line of investigating the practical working of the institutions of the government, thus seeing the every-day application of the subjects treated.

## LIBRARY.

About the 1st of October, the library was opened to pupils, who, after the customary "Library Instructions," at once began to make good use of the numerous privileges accorded them. This fact was demonstrated by the marked improvement in discipline over that of the previous years, and, as a result, more conscientious work has been accomplished than ever before.

Thanks are again due to Mr. Fellows for the regularity with which he has, by means of the reading-room fund, placed on our tables many of the current magazines and periodicals. These publications are constantly within the reach of both pupils and teachers and the thoroughness with which they are read is gratifying in the extreme.

About \$35 have been realized from fines on over-due books, and with this we have purchased a Century Dictionary cabinet and a small bust of Minerva, but aside from this the library has had absolutely no revenue. It is now several years since we have been able to purchase new books, and since those which have been in constant use are rapidly wearing out, our supply of volumes is visibly decreasing. Although through the courtesy of the school authorities, \$150 worth of rebinding was done for us, we find that as many of our books are not worth rebinding more than three times, the only remedy for the difficulty is to replace with new ones the old volumes which have been literally read to pieces.

We are also in urgent need of a carpet for the librarian's office, not only to improve the general attractiveness of the room, but also to prevent the drafts which, during cold weather, penetrate the cracks in the floor, inflicting serious injury to the health of the librarian and those who are stationed in the office for any length of time.

For some years we have asked the small annual appropriation of \$500 with which to replenish our shelves and to supply our yearly needs, but as yet our appeal has met with no response. We are justly proud of our library, and therefore earnestly beg consideration of this request to secure a specific appropriation for it when the estimates are submitted in the fall.

## BATTALION.

At the battalion's first public parade, February 22, the cadets were greatly praised by officers of the regular Army and the National Guard for their excellent marching and general appearance.

The annual company competitive drill was held in the National Theatre, Friday evening, June 3. The judges, officers of the regular Army were Capt. E. S. Godfrey, Seventh Cavalry; First Lieut. J. T. French, jr., Fourth Artillery; and First Lieut. J. A. Dapray, Twenty-third Infantry.



For the excellent progress made by the corps in the new drill regulations, great credit is due Maj. B. R. Ross, whose efforts as military instructor of the battalion have met with the most flattering success.

The battalion gave its annual drill and dress parade in front of the Arlington, June 17, and received many favorable comments from military experts and the daily press for the excellent showing made.

#### ENTERTAINMENTS.

On December 23, the annual Christmas entertainment was given in the Exhibition Hall by the pupils of the second and third years.

Fifty dollars was raised for the poor by voluntary contribution from the pupils. A wagonload of groceries, provisions, clothing and Christmas turkeys was also donated.

February 5, a lunch was given for the benefit of the library fund. Over \$50 was raised.

March 15, exercises, chiefly musical, were held in the hall.

In April a lunch was arranged by the young ladies of the school to raise money for the battalion flag, subsequently presented to the cadets. Over \$100 was raised, part of which was expended for a handsome oak reading desk, now in the Exhibition Hall, a gift from the young ladies of the school.

The annual public entertainment was given May 23, the chief feature of the evening being the presentation of the comic opera "The Astrologer," the joint work of a former pupil, Mr. Stanley Olmsted, and Mr. William Krug.

#### LECTURES.

November 5, Prof. E. B. Warman, of Chicago, lectured to the eighth grade and High School teachers on "Pronunciation."

During the month of November Prof. Warman also gave a course of evening lectures on "Elocution," and a series of afternoon talks on "Pronunciation" and "Diacritical Marks."

November 9, Superintendent Powell talked to the High School teachers on "English."

Prof. Chickering lectured to the first-year pupils in April upon the "Woods and Mountains of Maine."

#### SCHOLARSHIPS.

The successful competitors for the scholarships, the gifts of the school, allotted by competitive examination and for superior rank throughout the course, were as follows:

Miss H. M. Johnson, who attained the highest percentage for the three years' course, received the Kendall Scholarship at Columbian University. Miss R. B. Sherman, standing highest among the applicants for the National Medical Scholarship, received that gift. Mr. C. E. Yount,



having the highest record among the boys applying, was awarded the Georgetown Medical Scholarship. Miss E. L. Smith was presented the King Scholarship at Dickinson College, for highest standing among the applicants.

#### CONTINGENT FUND.

Under this head the report of last year can be reiterated word for word with renewed force. It is therefore submitted for reconsideration.

As will be seen from the statement of expenses, the school is overburdened in providing for contingent wants that are not paid for out of the contingent fund for schools, of the District appropriation.

That this burden is thrown on the management of the school is due not to any desire to hamper its complete and satisfactory appointment on the part of the school authorities, who have dealt with the institution within the limits of possibility with generous hand, but to the inadequate character of the appropriation.

The developement of the library is at a standstill. No new books can be purchased, except with the very small fund from concerts, and many worn books are thrown away that would last through some years of service were it not imperative to economize in binders' bills.

The amount of money necessary beyond what is now allotted to the needs of the school is but a paltry sum, yet the lack of it means serious inconvenience, limitations to the best work, and interference with the proper routine of study by the interruptions of concerts.

The following extract shows an appreciation of the necessity for more money. Its importance is increased with the *accumulation* of things demanding expenditure that it has been impossible to meet in the past:

"At present the fund is annually diminished by the payment of insurance premiums upon all the school buildings of the District, gas bills, printing, and other incidentals, necessary, it is true, but so consuming the fund that the real contingent educational needs of the schools can not be supplied. The reports of the supervising principals show conclusively the value of more libraries and reference books in the various school buildings. In all the schools music is taught, and at least one piano in each building is almost an indispensable necessity. The library at the High School, the educational value of which is abundantly apparent from all the annual reports coming from that institution, sadly needs replenishing and enlargement, and in various other particulars the highest educational results call for expenditures from the contingent fund which that fund has heretofore been wholly inadequate to meet."

"Various attempts have been made in the schools to supply books, pianos, and other needed paraphernalia by means of contributions solicited by the children, through the aid of entertainments, luncheons, and like measures, all of which to the board seemed wrong in principle and prejudicial both to pupils and the cause of education, but which, though the board has been unable to sanction them, they have felt nevertheless equally unable wholly to prohibit, in view of the urgency of the needs which they were intended to supply. We now submit the matter to your honorable board, and through you to Congress, in the hope that such action will be taken as will supply our schools with the needed appointments without converting the children of our community into canvassing agents."

The above statements are from the report of 1889-'90. It is a regrettable necessity to prolong the complaint that has been made from year to year. The contingent expenses of the school should be no part of the teacher's problem, yet each year vital needs of the school must be supplied by the petty financiering of teacher and pupil, or vital necessities dispensed with altogether.

The amount of money needed by this school in addition to the sum allotted to its needs from the present appropriations is small, so small that if added to the amount appropriated for the contingent expenses of schools in the District appropriations it would hardly be noticed, yet in order to secure this paltry sum by way of concerts, lunches, and canvassing, extraordinary effort is demanded at the cost of interference with the educational work of the school and some sacrifice of the dignity of the institution.

Without doubt, looking at the question comprehensively, from the point of view of the whole school system, a few thousand dollars added to the present \$30,000 appropriated would cover all the necessities, to meet which, teachers are now showmen and scholars solicitors.

During the past year the school has been obliged to saddle itself with a debt of about \$500 in order to meet current expenses and secure a new piano, which it has so long needed. This debt can not be liquidated in less than three years, placing the small school fund which it is possible to raise in an embarrassed condition. In the mean time the development of the library must cease entirely unless aid can be given from the District appropriation.

#### CONCLUSION.

In conclusion I wish to express my thanks for the many kindnesses of the superintendent and for the numerous courtesies shown the school by Mr. J. J. Darlington, Chairman of the High and Normal Schools committee, and his associates, Mr. J. T. Mitchell and Mr. J. W. Whelpley.

Very respectfully,

F. R. LANE.

JUNE 30, 1892.

#### HIGH SCHOOL, EASTERN BRANCH.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: The principal statistics as to number and attendance of pupils in the Eastern high school during the year ending June 30, 1892, are as follows:

Number of pupils readmitted from previous year.....	89
Number of new admissions .....	181
Number of withdrawals .....	28
Number at close of year .....	219
Whole number enrolled (boys, 111; girls, 159) .....	270
Average number enrolled.....	239
Average number in daily attendance.....	226
Percentage of attendance.....	94.3
Number of pupils in second-year class .....	95
Number of pupils in first-year class.....	175
Number in academic course .....	171
Number in scientific course.....	99
Average age of pupils, years .....	15.9

The year was one of expectancy. At the opening of school in September it was confidently hoped that the new building would be ready for occupancy within four months at farthest. Temporary pro-



vision was made for carrying on the work of the enlarged school in the same quarters which had been occupied the preceding year. The gymnasium hall of the Peabody building was divided into class rooms in such a way that it could still be used for general assembly. Corridor spaces which could not be closed in were put to use as regular recitation rooms, as was also the principal's office. A small room seated with benches served as the "laboratory" for both chemistry and physics. Drawing and other work were similarly hampered.

Considering the inconveniences of this situation, which continued throughout the year, the results attained are gratifying. Aside from the lack of laboratory facilities, the pupils suffered no apparent loss in the essentials of a year's training. It may be that the mental discipline involved in studying and reciting under unfavorable circumstances compensates in large measure for the inconveniences endured. Even in the science department, by a careful arrangement of the work, the instructors were able to give pupils opportunity for a considerable amount of individual manipulation and investigation.

It is proper that mention be made of the faithfulness with which the teachers discharged the exacting duties of the year and of the cheerfulness with which they assumed unusual burdens. The peculiar conditions of the year's work imposed upon them a severe and constant strain. To the pupils credit is also due for their uniformly hearty acquiescence in requirements which were sometimes hard. The general discipline was fully as good as could have been expected in the crowded condition of the building, serious breaches of discipline being almost unknown.

In the courses of study and methods of instruction no essential departure was made from the plans of previous years. The scope of the work done in the various subjects was substantially the same as in the Central high school. The restrictions under which the work was carried on prevented the development of special educational methods which it is hoped may be satisfactorily applied during the coming year.

Despite the poor accommodations afforded for an audience the Friday afternoon "rhetoricals" were continued with excellent results. Besides programmes presented by pupils, the following occasions were of special interest:

An address by Prof. E. B. Warman, of Chicago, on (1) Physical Culture and (2) True and False Elocution.

An address by Dr. A. D. Mayo on Education and Patriotism.

An address by Mrs. I. G. Myers, principal of the Washington Normal School, on the Purpose and Requirements of a Normal Course.

Addresses by Hon. J. J. McClaren, of Toronto, Miss Gibson, of France, and Rev. Mr. Davidson, of Japan, delegates to the Ecumenical Methodist Conference.

On March 29 Dr. Edward Everett Hale, of Boston, addressed the school and aroused much patriotic enthusiasm. The following Friday



the school listened to readings from "The Man Without a Country," and adopted and forwarded to Dr. Hale resolutions of appreciation and congratulation on the occasion of his seventieth birthday.

Early in the year a "Columbian Historical Society" was organized, comprising the entire school, with the object of stimulating investigation and thought in matters connected with the Columbian Exposition. One of the Friday afternoon programs conducted by this society was devoted to a most interesting presentation of the life and times of Columbus and the history, architecture, general plan, and significance of the World's Fair of 1893.

A public entertainment by pupils of the schools, assisted by distinguished talent, was given at Odd Fellows' Hall May 6, and repeated on the following evening. The proceeds, about \$200, will be applied to the purchase of books and other necessities. A creditable presentation of scenes from Shakespeare's "Midsummer Night's Dream" was given on this occasion. On closing day a portion of the "Merchant of Venice," which had been studied in the course of the second-year English work, was presented.

Thanking you for the courtesy and consideration shown throughout the year, I am,

Very respectfully,

C. M. LACEY SITES,  
*Principal.*

Mr. W. B. POWELL,  
*Superintendent of Schools.*

#### HIGH SCHOOL, WESTERN BRANCH.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit herewith a report of the Western high school for the year ending June 30, 1892:

##### *Numbers and attendance.*

Number of pupils readmitted from previous year .....	47
Number admitted at the beginning of the year .....	70
Number subsequently admitted .....	9
Number of withdrawals .....	16
Number at the close of the year .....	108
Whole number enrolled (girls 86, boys 40) .....	126
Average number enrolled .....	107
Average number in daily attendance .....	101
Percentage of attendance .....	93.9

*Year 1891-'92.*

Months.	Average enrollment.	Average attendance.	Per-centage.
September .....	115.8	114.6	98.9
October .....	114.1	110.5	96.8
November .....	112.6	107.6	95.5
December .....	110.1	102.1	92.7
January .....	110.6	102.4	92.5
February .....	111.9	104.8	93.9
March .....	111.0	102.7	92.5
April .....	107.9	100.7	93.3
May .....	113.1	106.6	94.2
June .....	108.3	102.0	94.1

The number of pupils enrolled in each class was: First-year class, 81; second-year class, 45.

*Statistics of attendance 1891-'92.*

Year opened with enrollment of .....	117
Maximum enrollment (October) .....	119
Close of year (June) .....	113
Average enrollment .....	114.7
Approximate ratio boys to girls .....	2:4.3
Average percentage of attendance .....	94.4

## BUILDING AND ACCOMMODATIONS.

With a view to making the Curtis school building the permanent home of the Western high school, some repairs and alterations were made for the accommodation of the larger class consequent upon the establishment of the second-year class.

## DISCIPLINE.

Discipline has been a comparatively easy matter, partly owing, doubtless, to the almost invariably courteous demeanor of the students, and partly to the unanimity of purpose and hearty coöperation of the teachers.

## CHANGES IN TEACHERS.

Miss Helen B. Offley was appointed teacher of English; Miss Harriet J. Buchly, teacher of physics. Miss Dela P. Mussey was appointed teacher of drawing in the place of Miss L. A. Chester, of the Eastern high school; Miss Annie E. Scammel was appointed teacher of music in the place of Prof. Daniel. Miss Gwyneth D. King was assigned as health teacher.

## PHYSICS.

Number of pupils, 45.

The establishment of a second-year class having made necessary the introduction of the study of physics, a laboratory was opened this year. While incomplete in some respects, it is yet so furnished as to form a good working plant, which may be developed in succeeding years until a thoroughly satisfactory laboratory is obtained. The study of physics was taken up by the entire second-year class.

At first, four hours a week were given to physics, two hours being devoted to recitation in class room, one to individual laboratory work, and one to lecture. But later in the year it was found that we could arrange for another laboratory period, and it was done. This was a step in the right direction, and brought us nearer to the realization of the true scientific method.

The aim in teaching physics was, not so much the accumulation of facts, as the awakening an interest in scientific research. The work, therefore, was not confined to the text, but topics were assigned for which references to leading scientific journals were given, and reports upon these topics were required in recitation. As far as possible, students have constructed apparatus to illustrate the principles involved in the subjects assigned them. The result was, as expected, an awakening of interest in scientific subjects. Many times there were voluntary offerings of magazines and papers containing articles of high scientific worth which had attracted the students in their chance reading.

Weather charts have been received daily through the courtesy of the Weather Bureau, and at the close of the year, after a lecture upon the methods of taking observations and constructing the charts, the entire class visited the Weather Bureau and made a careful examination of the instruments.

## GERMAN.

Number of students: First year, 35; second year, 25.

The teaching of German was conducted under the so-called "natural method," German being spoken, as a rule, in the class room from the beginning, thus working from the practical up to the theoretical.

While spending much time in reading, writing, and speaking the language, English has been used when necessary for explanations or in translations from one language into the other. Original composition has been practiced to some extent, especially letter-writing. Dr. Wilhelm Bernhardt's series of text-books have been used with success as the foundation of the work.

## HISTORY.

Number of students: First year, 80; second year, 45.

The first-year classes began their history course, with Myer's Eastern Nations and Greece as a text-book, studying first the geography of



these countries and their surroundings. The endeavor in this work was to teach the relation between cause and effect, and to lead the pupil to grasp the significance of historical events as related to universal progress and development. The study of Roman history, with Allen's History of Rome as a text-book, was begun in the third quarter, and developed in much the same way.

English history, for second-year classes, occupied two quarters, four periods a week being devoted to it. Much collateral reading was done, and many interesting papers were written on topics individually assigned, thus making something of an approach to the seminary method. Here, as in all the history work, the aim has been to teach the philosophy of history. Discussions, debate, and expression of honest opinion were always encouraged.

#### LATIN.

Number of students: First year, 45; second year, 20.

First-year students finished the work prescribed in Collar and Daniel's Beginners' Latin Book, and read the Second Book of Cæsar. Second-year students read the first, third, and fourth books of Cæsar (reviewing the second), and three orations of Cicero.

#### MATHEMATICS.

Number of pupils, 120; first year, algebra, 80; second year, geometry, 40.

The class in algebra covered the usual amount of work. Any difficulties presented by the text-book were promptly met by the teacher through the use of a number of other books on algebra, together with abundant expedients of other kinds, by which the work was made interesting and practical. So far as possible the aim was to make the students entirely independent of their text-books, and to teach them reliance upon their own power of argument and the fixed principles of mathematics.

In geometry great attention was paid to the solving of problems and the working of "originals," as the only true means of developing power in logical argument.

#### ENGLISH.

Number of pupils: First year, 81; second year, 45.

In first year English the plan of work was substantially that of each of the other high schools, with the possible exception of the introduction of the study of excellent models before making descriptions. This plan was introduced by us this year, and has proven very successful. Each student is given a mimeograph copy of some perfect description, as, for example, Blackmore's description of Glen Doone, or a vignette from Ruskin. These are carefully and critically studied in class, and from the models laws for the making of descriptions are developed. The students then undertake the description of a picture with

a truer appreciation of the art of descriptive writing. The results show the benefits of such training. The same plan was afterward adapted to other kinds of composition, and with equal success.

In second-year classes, the English history makes a serious break in the English work. It is hoped that when a four years' course is made out, it will provide for English work thorough the second year.

#### CHEMISTRY.

Owing to the expense of fitting up a laboratory for physics, it was not deemed advisable to open a chemical laboratory this year, and students selecting chemistry were to have been transferred to the Central high school. But one student elected chemistry, however, and upon learning the conditions consequent upon its pursuance, she took up physics with the remainder of the class.

#### NATURAL SCIENCE.

By advise of Mr. Powell, lectures in natural science for first-year students were discontinued.

#### MANUAL TRAINING.

The course in manual training for first-year students was almost entirely confined to drafting, supplemented by tracing and making blue prints. Great interest was manifested by the students in this new phase of their work, and the results have been creditable. A girl's class in manual training was organized from the second-year class, and carried on with great success.

#### DRAWING.

The course for first and second year students in the regular classes, consisted of drawing from objects, sketching from plant forms, and mechanical drawing. The work done in these classes was very creditable.

The special classes in drawing proved a great source of profit and pleasure, for they worked throughout the year earnestly and enthusiastically. Beginning with clay modeling, they pursued a comprehensive course, comprising object drawing in light and shade, and mechanical drawing, finishing the school year with designing in charcoal and color.

#### PHYSICAL TRAINING.

A long felt want was supplied by the introduction of regular systematic health lessons for the girls. Miss Gwyneth D. King was appointed to take charge of this work. Her work was an adaptation of the principles of Delsarte, with a special view to teaching correct standing and sitting positions, correct walking, the method of going up and down stairs without injury, and grace and flexibility of movements.

Miss King has made very great improvements in her classes in many of the lines mentioned above.

On account of the smallness of the school, it was found impracticable to organize a military company among the boys. I would, however, take this occasion to extend our grateful acknowledgment to Dr. Lane and Mr. Davis, through whose courtesy boys especially desirous of military drill were enabled to become members of the Central and Business high school companies.

#### COOKING.

So many students had already finished the prescribed course of three years in cooking, that but five young ladies were found who elected the subject this year. Cooking was begun in the seventh grade in many instances in the fifth division, so that most of the students in the first year class had completed the course before entering the high school.

#### MUSIC.

Miss Annie E. Scammell was appointed to take charge of the music in the Western high school, but the appointment was made so late that while the quality of the work done was excellent, the quantity was not what it should have been. However, the work is well started now, and we expect to take it up with enthusiasm, and hope next year to make up all deficiencies as to the amount of work done.

#### LECTURES AND RECITALS.

October 28, Miss Amy C. Leavitt gave a piano recital, giving a short explanatory sketch and interpretation of each number rendered.

November 17, Prof. Warman, of Chicago, gave a lecture on True and False Elocution.

January 7, Mrs. Walworth lectured upon the topic, Society in the Past and Present.

January 21, Major Powell talked upon The Physical Features of the United States.

February 5, Dr. R. D. Klemm, of The Bureau of Education, lectured upon the Spell of the Past.

February 18, Mr. Partridge gave a very interesting lecture upon The Marble Industry of the United States.

March 10, Dr. R. D. Klemm lectured on the Growth and Development of Words.

March 15, Mrs. E. J. Perkins gave a vocal recital.

March 25, Miss Josephine Appleby gave a violin recital.

May 10, Miss Lotta Mills gave a piano recital.



## RHETORICALS.

Public rhetorical were not conducted at stated intervals, but frequently throughout the year, when work in some department seemed ripe for presentation, we had a public exhibition of the regular or correlated class-room work. On these occasions friends of the students were invited to be present. Notable among these occasions are the Whittier and Tennyson days, on which occasions the programs consisted of selections, songs, and quotations from the authors, accompanied by critical and biographical essays.

On the evening of April 22, through the courtesy of Mr. J. T. Mitchell, the hall was thrown open to the friends and parents of the students, when several hundred patrons and friends of the school assembled to witness the Dickens program. This consisted of the presentation of three scenes from Dickens, one each from "David Copperfield," "Martin Chuzzlewit," and "Our Mutual Friend." Beside the students taking part in this work, there were nearly one hundred students in costume, representing nearly all of the most well-known characters from Dickens.

All of this work is the direct outgrowth of the English work, and is a very valuable adjunct to it, arousing an interest in and enthusiasm for the author under study that nothing else can accomplish. Beside public rhetorical, lectures, and recitals, it was our custom to have a short general exercise twice a week, on which occasion students were expected to talk without notes, upon subjects of general interest previously assigned to them. This exercise has proven invaluable in giving the pupils confidence and a command of language, as well as in making them conversant with the topics of the times.

## LIBRARY.

Our library privileges were extended by the granting on the part of the trustees of the Peabody Library Association the use of the library as reading room during the school session. This was a very great advantage to the school in all departments of the work.

In conclusion, I wish to thank the superintendent, the president of the board, and the supervising principal of the fifth division, for invariable consideration and helpfulness.

Very respectfully,

EDITH C. WESTCOTT.

Hon. W. B. POWELL,  
*Superintendent of Schools.*

## BUSINESS HIGH SCHOOL.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit the following report of the work of the Business high school for the school year ending June 30, 1892:

*Numbers and attendance, 1891-'92.*

Maximum enrollment (October): First year—Boys, 143; girls, 138; total, 281.

Second year—Boys, 44; girls, 40; total, 84.....	365
Enrollment at the close of the year.....	256
Average enrollment.....	329
Average per cent of attendance.....	94
Average number of pupils per section (October).....	45

*Attendance by months, 1891-'92.*

Months.	Average enrollment.	Average attendance.	Per cent.
September.....	346	344	99
October.....	359	347	96
November.....	348	334	95
December.....	338	313	92
January.....	319	292	91
February.....	313	294	94
March.....	298	270	91
April.....	285	250	87
May.....	265	243	92
June.....	265	251	95

Average age of first-year pupils at entrance, 16.3 years.

*Outline of course of study.*

First year.	Second year.
Prescribed studies: English. Business arithmetic. Bookkeeping. Shorthand. Penmanship. Elective studies: Typewriting and mechanical drawing.	Prescribed studies: English. Bookkeeping and business practice. Shorthand and typewriting. Commercial law. Commercial geography. Elective study: Mechanical drawing.

## SYNOPSIS OF COURSE OF STUDY BY SUBJECTS.

## BOOKKEEPING.

*First year.*—Time, five hours a week. "Bryant and Stratton's Common School Bookkeeping" is used as a text-book during the first two quarters. The exercises in this book include sets in single and in double entry, illustrating retail dry-goods business, wholesale dry-

goods business, furniture and cabinet business, and gentlemen's furnishing business. During the last two quarters several difficult sets of practice exercises are worked by the pupils without the aid of a text-book.

*Second year.*—Time, five hours a week. Text-book, Goodwin's Book-keeping and Business Manual. Practical exercises from Goodwin's text-book; banking; business practice; solution of bookkeeping problems; preparation of sample sets adapted to various kinds of business.

#### BUSINESS ARITHMETIC.

*First year.*—Time, three hours a week throughout the year. Sadler's Inductive Arithmetic, Part II, is used as a text-book. The pupil is trained to become accurate, rapid, and neat in all work, and is given frequent practice in the solution of mental problems. The most important subjects treated are trade discount, interest, partial payments, commercial paper, stocks and bonds, exchange, insurance, bankruptcy, equation of payments, averaging accounts, cash balance, and partnership.

*Second year.*—Time, one hour a week. Review of first-year work with miscellaneous problems.

#### ENGLISH.

*First year.*—Time, four hours a week. First three quarters, "Lockwood's English Lessons," with especial attention to the chapters on common errors in the use of English, diction, sentences, punctuation and capitals, and composition. Fourth quarter, Eaton's Manual of Correspondence, with especial attention to business forms and the writing of original business letters, telegrams, requests for payment, letters of recommendation, and similar compositions.

*Second year.*—Time, four hours a week. First quarter, review of grammar, using Kerl's text-book. Second and third quarters, critical reading of selected works. Fourth quarter, review of the two years' work.

#### SHORTHAND.

*First year.*—Time, three hours a week. Text-book, Barnes's Shorthand Manual. No endeavor is made in the first year's work to attain speed. The pupil is made thoroughly familiar with the principles of the art and taught to write and transcribe with accuracy and neatness. The fourth quarter is devoted to slow dictation, and transcription on the typewriter of shorthand notes.

*Second year.*—Time, four hours a week. Text-book, Dement's Pitmanic Shorthand Manual. Pupils are required to take notes from dictation and to transcribe them on the typewriter. Business letters, general newspaper work, law and patent forms, are chiefly used for this purpose. In addition to requiring speed and accuracy in shorthand, attention is given to neatness, arrangement, spelling, punctuation, capitalization, and general knowledge of English.



## COMMERCIAL GEOGRAPHY.

*Second year.*—Time, two hours a week. Text-book, Tilden's Commercial Geography. The pupil is made acquainted with the productions, resources, and industries of his own country and of the chief foreign countries; with the manner, means, and methods of exchange; seasons and climates; routes of travel; the growth of commerce; the production centers and markets of the world; water ways and railways; the growth of cities as related to commerce; the staple articles of commerce, their relative values and importance.

## COMMERCIAL LAW.

*Second year.*—Time, three hours a week. Text-book, S. S. Clark's Commercial Law. The subjects treated include contracts, agency, corporations, partnership, lien, negotiable paper, landlord and tenant, and mortgages. Pupils are required to discuss legal questions of present interest, such as the silver question and the national-banking system.

## MECHANICAL DRAWING.

*First year.*—Time, two hours a week. Simple geometric problems, machine drawing and orthographic projections, architectural drawing from models.

*Second year.*—Advanced problems in orthographic projection machine drawings to scale from models. Architectural drawing.

## PENMANSHIP.

*First year.*—Time, two hours per week. Particular attention is given to position and movement. Penmanship, spelling, and the writing of business forms are combined during the second half of the year.

## TYPEWRITING.

*First year.*—Time, three hours a week; text-book, Barnes's Typewriting Manual. During the first three quarters the pupils are instructed in fingering, arrangement, and manipulation, cleaning and oiling of the machine, and are required to copy accurately from forms placed before them. The last quarter is devoted to the transcription of shorthand notes.

*Second year.*—Time, four hours a week. The work of this year is similar to that of the first year in part. Much time is given to the transcription of shorthand notes, the pupils being made familiar with the details of the machine. Carbon and press copying are also taught.

## SCHOOL ACCOMMODATIONS.

There has been considerable improvement this year in the quarters allotted to this school. Yet, while the third floor of the Franklin building has been found to be better suited to the needs of the school than

the Thomson building, there is room for further improvement. Work in several departments has been hampered by lack of sufficient space.

In order that the crowded condition of this school may be appreciated, it may be noted that 40 or 50 pupils who were fully qualified for admission were turned away; that the school was crowded to such an extent that half the sections contained more than 45 pupils each; and that pupils were for two quarters compelled to do bookkeeping work sitting on small folding chairs. Such conditions are a serious obstacle to good teaching.

It is earnestly recommended that the school board endeavor to secure for this school a new building which shall be centrally located and suitable for the purposes of a business school.

#### INSTRUCTION.

The object of the instruction has been to combine that which is practical with that which has an educational value. To give the pupil a knowledge which will fit him to enter business life and at the same time will develop his mind and cultivate him.

One of the most gratifying results of the establishment of this school has been the increase which it has caused in the number of those who seek higher public education. This increase is to be accounted for largely by the fact that many pupils after leaving the eighth grade of our public schools do not have the means or the inclination to take a three or four year course in the high school, but yet are willing to spend one or two years in a business school.

#### BOOKKEEPING.

Number of pupils, 362. First year: Boys, 142; girls, 136; total, 278. Second year: Boys, 44; girls, 40; total, 84.

The bookkeeping course for the first year covers both single and double entry. During the first half of the year Bryant and Stratton's Common School Bookkeeping is used as a text-book. At first the pupils are taught the fundamental principles of keeping accounts and are required to enter in day book and ledger the simple transactions of a small grocery business. After this the cash book, sales book, bill book, and invoice book are explained and illustrated by transactions gradually increasing in difficulty. Double entry is taken up in much the same way. At first the pupil is shown the advantages of this system over single entry and taught to journalize entries, simple at first, but increasing in complexity until near the end of the year, when the exercises used include almost every conceivable form of entry usual in wholesale, retail, brokerage, and commission business. The pupil is required to keep the various auxiliary books, to make trial balances, to balance the ledger, find the losses and gains and apportion them among partners.

The purpose of the course is not so much to make a bookkeeper pro-



ficient in any one line as it is to qualify the pupil to understand with slight study and direction any set of books which he may be called on to keep. The instruction is, therefore, general rather than special, the pupil being encouraged to use his own intellect in applying general principles to special cases.

It is to be regretted that lack of space and appliances made it necessary to omit the bank work, which proved so interesting and profitable a feature of last year's course. This omission will be remedied, however, by giving the pupils banking and business practice in the second year of the course.

The work of the second-year classes was a continuation of the work of the first-year class during the preceding year. The practical exercises in Goodwin's Bookkeeping were first taken up. These were followed by a set in banking. Students were required to originate sample sets and were subjected to frequent oral examination. Various problems with which a bookkeeper is liable to meet were presented to the class for solution.

#### BUSINESS ARITHMETIC.

Number of pupils; 358. First year: Boys, 140; girls, 134; total, 274. Second year: Boys, 44; girls, 40; total, 84.

Sadler's Inductive Arithmetic, Part II, was used with supplementary class work from other books.

The instruction was particularly in the line of practical business methods, with special endeavors towards securing accuracy and rapidity. The work included percentage, operations in banking, various methods of computing interest, partnership, etc., and, together with the year's work in bookkeeping, is designed to fit pupils for all practical and ordinary arithmetical problems of business life.

The second-year work in this subject was confined to a review of the work done the previous year, one hour a week being assigned for this subject. Special stress was laid upon percentage, exchange, banking, interest, discount and all work that applies to commercial transactions. Many problems for class work were taken from the civil-service questions in arithmetic and from those used in the regents' examinations in New York.

#### ENGLISH.

Number of pupils, 365. First year: Boys, 143; girls, 138; total, 281. Second year: Boys, 44; girls, 40; total, 84.

English, as taken up by the first-year pupils, comprised practical work and the study of a few masterpieces, two-thirds of the time, in view of the aims of the school, being devoted to the former grade of instruction, the remaining third to the higher branch of the subject.

Eaton's Manual of Correspondence, Smith's Synopsis of English and American Literature, and pamphlet editions of Sleepy Hollow and Miles Standish were used.



In this work the constant aim was not only to give a knowledge of these masterpieces of English, but to make each lesson an exercise in the use of correct idiomatic English. To that end the pupils were encouraged to watch themselves and their classmates in recitation, to note all errors, to give correct forms, and in all cases to give the reasons for such corrections.

The results of the English teaching during the year were on the whole very encouraging. The practical work sharpened the minds of the pupils, made them quick to detect errors, acquainted them with the proper spelling and use of words, besides equipping them with business forms of correspondence, dispatching, advertising, etc.

A majority of the pupils have formed a taste for good literature, a taste that will lead them, it is hoped, in after years, to read and to complete what has only been begun in their school work.

#### SHORTHAND.

Number of pupils, 254. First year: Boys, 139; girls, 135; total, 274. Second year: Boys, 42; girls, 38; total, 80.

The course in shorthand consisted of first and second year work. The object of the first-year work was not so much to attain speed as to so thoroughly drill the pupil in the principles of shorthand, so that, should he not be able to continue a second year, he might, with a few months' simple dictation, be able to do practical work. The chief text book used was Barnes's Shorthand Manual supplemented by Isaac Dement's Pitmanic Manual.

It was not deemed necessary to teach the Pitman system pure and simple, but the course was made a composite one, embracing a few principles from other systems which have been found by prominent practical reporters to be of much value. The pupils during the latter part of the year were given easy dictation consisting of business letters, law forms, testimony, etc., and were required to transcribe their notes on the typewriter. This proved to be a most excellent plan.

The work covered more ground, was more thorough, and was in every way more satisfactory in results than that of the year previous, as we were able after a year's test to reduce the mode of teaching to a system especially fitted to the needs of our pupils.

The second-year work consisted almost entirely of dictation, including business letters, law and patent work, and general newspaper work.

The object of this work was, of course, accuracy and speed, the rate necessary to obtain a diploma being about seventy-five words a minute. No text-book was used, except for reference, but matter gathered from offices in the city was dictated, thus making the work eminently practical. Second-year pupils were also required to transcribe their notes on the typewriter, putting law papers, etc., into proper form, and were held responsible for absolute correctness respecting both the shorthand and the English. The standard was high and the criticism strict, thus insuring good work.

## COMMERCIAL GEOGRAPHY.

Number of pupils, 84. Second year: Boys, 44; girls, 40.

The plan of study during the year was as follows:

(1) The history of commerce was first considered under the following heads: The cause, of the rise and fall of great trade centers. The westward progress of commerce: Phœnician, Carthaginian, Grecian. Roman, Mediæval, and Modern. The great Italian and Hanse towns. Trade routes and fairs. The manufacturing centers of Europe. The commercial empires of the East and the West. The industrial revolution of the eighteenth century. Commerce as affected by war; by political revolution.

(2) The general facts relating to the production, distribution, and exchange of commodities. This division included climate, soil, preservation of the properties of the soil, irrigation, labor, machinery, devastating agents, transportation, posts and telegraphs, commercial routes and towns, instruments of exchange.

(3) Commodities dependent directly or indirectly on climate. The cereals were considered at length respecting the antiquity of the plant, methods of cultivation, soil, and climate best suited to each, improvement in instruments of cultivation. Sketch maps were required of the cereal states, giving acreage under cultivation, number of bushels per acre, and value of bushels per acre. Legendary, classical, and poetical mention of plants called for, viz: The Hiawathian origin of maize.

(4) Minerals: Where obtained; their value to man—in manufacture, in the arts; their nearness to market centers; cost of production.

(5) Manufactured products: The textiles were chiefly considered; the various products of the cotton plant; the method of cultivation in different countries; results obtained; reasons required for these results; the manufacture of cotton from the earliest days to the present.

(6) Wool: As to wool-producing animals; famous wools of commerce; history of woollen manufactures; historical and poetical allusion called for.

(7) The United States: Physical regions and natural resources, raw products, manufactures, commerce, waterways and railways, growth of industries and commerce; industries sectionally considered; imports and exports; principal seaports, etc. Other countries were considered briefly in the order of their commercial importance.

Special topics were assigned on which to prepare reports to be read in class, viz: Recent discoveries concerning the Gulf Stream; Egypt and the occupation; wages in Mexico; the building of an ocean steamer; petroleum and its products; glucose, sorghum, and beet sugar; tropical fibers, jute, sissal, hemp, and ramie; the fisheries; coal in the United States; dyestuffs, vegetable and mineral; tea, coffee, spices, and condiments; gold, silver, lead, and copper; reciprocity and the farmer; irrigation.



An outline was given of the topic assigned; all possible information was found by the scholar; if questions in recitation showed the knowledge to be meager, supplementary information was given (notebooks were inspected and marked), the topic discussed, and revised; a paper was then required from each scholar on that topic.

Each quarter's work was reviewed and followed by a written examination. Sketch maps showing the direction of ocean currents, trade winds, cable, and commercial routes were called for.

The effects of political geography on commerce, the seal fisheries, the Chilean question, and reciprocity were noticed in showing the interdependence of nations.

Articles from the current press and magazines bearing on commerce were used.

Having only a book of reference, much material had to be accumulated. Thanks are due to the courtesy of the departments for much valuable knowledge not otherwise obtainable. Consular, agricultural, geological, Inter-State Commerce Commission reports, charts from the Hydrographic Office, and other material were furnished for the school.

The National Geographic Society permitted the attendance of the class at the lectures given in their course during the winter.

This study, combines, as do few, the practical side in preparing the scholar for business, and the culture study which broadens the individual by opening up so many fields of knowledge.

#### COMMERCIAL LAW.

Number of pupils, 84. Second year: Boys, 44; girls, 40.

The course in commercial law was based on the text-book of S. S. Clark. Its object was to give the pupil such a knowledge of elementary law principles governing ordinary business transactions, as every man of affairs ought to possess. The course comprised the study chiefly of contracts in their various forms and applications with special attention to such important branches as agency, commercial paper, insurance, transportation, and the law of common carriers. The latter part of the course was devoted to the law of real property, renting, leasing, and conveyancing. In addition to the text-book it was the custom through the year to devote considerable time to the discussion of matters of general interest and practical business utility, such as the silver question, the tariff, and the national banking system.

#### MECHANICAL DRAWING.

Number of pupils, 78. First year: Boys, 48; girls, 10; total, 58. Second year: Boys, 16; girls, 4; total, 20.

The course in the first year included simple geometric problems; applications of these to geometric and machine details; orthographic projection and the study of the Egyptian and Greek styles of archi-



ecture. This work is to be followed in the second year by the other leading styles in their chronological order. During the last quarter the pupils prepared rough sketches of the plans of dwelling houses. Each pupil worked out a more or less original design, ideas for which he obtained by the observation of his own and other houses accessible to him. One floor plan of each house was finished in ink and colored.

The work of the second year comprised more advanced problems in orthographic projection and architectural drawings.

The lack of sufficient space rendered much desirable work impossible.

The work in drawing, although all that could be expected with the limited time allotted to that subject, was not as complete as is desirable. It is suggested that a special course in drawing and mathematics be created. The first year of such a course could include mechanical drawing, algebra, geometry, and English; the second, advanced mechanical and architectural drawing, trigonometry, English, and simple descriptive geometry. No knowledge of drawing can be thorough that is not founded upon mathematics. It is believed that the course outlined above would be selected by a sufficient number of pupils to warrant its establishment.

#### PENMANSHIP.

Number of pupils, 281. First year: Boys, 143; girls, 138.

In teaching penmanship the endeavor was to give the pupils a handwriting which would be of service to them in business pursuits. Legibility, neatness and rapidity were considered the essential things to be striven for. Since a large proportion of the pupils wrote in a slow, cramped manner, particular attention was paid to the proper position and movement. Many practice exercises were given for the purpose of developing freedom and rapidity of execution. During part of the year exercises in spelling and in penmanship were combined.

#### TYPEWRITING.

Number of pupils, 224. First-year: Boys, 66; girls, 78; total, 144. Second year: Boys, 42; girls, 38; total, 80.

Thirty-three typewriters were used in the school. The second-year pupils received each week four lessons, each fifty minutes in length; the first-year pupils received three lessons a week.

Barnes's Typewriting Manual was used as the book of instruction, a copy being furnished for each machine. The plan of this book was strictly followed for the first two quarters by the first-year classes. Much practice was given to fingered word exercises, business phrases and business letters. Personal attention was given and corrections made in handling the machine and in fingering. After this followed instruction in tabulated work, business letters and directions on envel-

opes, work on postal cards and telegram blanks, writing on ruled paper and manifolding with carbon paper. During the last quarter pupils were given time for the transcription of their short-hand notes on the typewriter. Personal attention was given to press copying.

The pupils were made acquainted with the use of the parts of the machine as it became necessary. Each class was required to do the cleaning and oiling at least once a week.

No attempt was made to teach rapid typewriting, but attention was paid to accurate work. All papers were required to be perfect before they were passed to the teachers.

The object was to give such instruction as will enable the pupils, when the course is completed, to be of service as careful secretaries and amanuenses.

The educational value of the typewriter should not be overlooked. It forces the mind to act quickly and accustoms the hand to work in unison with the brain. The transcription of shorthand notes on the typewriter and writing from direct dictation are excellent exercises in spelling, capitalization, punctuation, and composition.

The result of the instruction in this branch was very satisfactory, and although it was ranked as a minor subject the pupils applied themselves diligently and manifested great interest.

#### MILITARY AND DELSARTE DRILL.

A company of seventy boys was organized early in October, forming Company E of the High School Cadets.

As was the case the previous year the military drill had a salutary effect upon the bearing and conduct of the boys, and was instrumental in perfecting the discipline of the school. Capt. Burton R. Ross, military instructor, deserves credit for the high degree of proficiency that was attained.

Each section of girls was given a calisthenic drill at least once a week throughout the year. An endeavor was also made to secure correct bearing and position at all times.

During the latter half of the year instruction was given, under the efficient direction of Miss King, in Delsarte exercises. While the result was most encouraging, the work was hampered by lack of a suitable hall.

#### GENERAL REMARKS.

The first graduating exercises of the school took place June 20, in High School Hall. Mr. Mitchell, president of the school board, presided; Mr. Isadore Saks delivered the address to the graduating class, and Commissioner Ross conferred the diplomas. The graduates numbered 35—17 boys and 18 girls.

No serious breach of discipline occurred, and the ordinary cases of misconduct were few. The concentration of the school in one building corrected the tendency to disorder that arose from a divided school.



Your attention is again called to the desirability of obtaining an appropriation to increase the number of books in the small library possessed by this school. The school should not be forced to rely upon entertainments for this purpose.

In closing, I desire to express my appreciation of the advice and assistance received from the chairman of the school board, and from the superintendent of public schools.

Very respectfully,

C. A. DAVIS,  
*Principal.*

Mr. W. B. POWELL,  
*Superintendent of Public Schools.*

---

#### NORMAL SCHOOL.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: The following is a report of the Washington Normal school for the year ending June 30, 1892:

No change was made in the organization of the school. It therefore included both professional and practice departments, under the instruction and direction of the principal, assisted by her method and practice teachers. A separation into two equal sections was effected to furnish accommodations in the Franklin building for the Business high school. One part was retained at the Franklin building, but the other was placed in the Dennison building on S street. This division, while securing appreciable advantages to the high school, resulted in an equally appreciable loss of opportunities to the pupil teachers of the normal school. By it the pupils were deprived of a full share of instruction and supervision, since the principal was required to duplicate her work instead of teaching the entire class at one time; they did not have the advantage of the influence of the entire teaching corps; they missed the peculiar strength and spirit coming from unanimity of interest and endeavor. It seems urgently desirable that arrangements be made by which the whole school may be placed in one building.

Forty-six pupils were admitted to the normal school, all of whom were graduated. The terms of admission were those existing in former years—graduation from the high school and a competitive examination.

The work of the school advanced along the professional and practical lines which the two departments were established to follow. The time devoted to professional work was given, first, to a review, or a study where necessary, of the subjects taught in the grades of the public schools. After the review each subject was gathered into a unit made up of parts whose relations to one another, as well as the relation of



each to the whole, were determined by analytical study. This work with each subject was followed by a study of children, in order to establish a practical psychological basis for the formation of theories concerning the best means of giving to them both training and culture. The pupil-teachers were then required to grade the work of each subject, using their recently acquired knowledge of the child mind as a guide. Methods were then given, usually by means of lessons with the analysis and criticism of these. Toward the close of the year several pedagogical works were read by the class. These were analyzed and discussed in the light of the observations and experiences of the pupil-teachers during the year.

The practice department comprised eight schools, each section having the first four grades. The subjects were those taught in the corresponding grades of the other city schools. The pupil-teachers added practical power to their professional training by teaching the schools of the practice department. Each served in short terms, during which time she was made responsible for the progress of the school under her care. The teachers of the normal school, by illustrative lessons, by observation and criticism and by discussion of plans of work, sought to contribute faithfully and wisely to the intelligence and skill of the pupil-teachers. The work often brought serious problems—those which come sooner or later to every training school—but the general good character of the year's work, as shown in the efficiency of the pupil-teachers and the proficiency of the pupils in the practice department, indicates that these problems were submitted to investigation and serious attention.

The general nature of this report is due to the fact that no essential change of plan or work has taken place since the detailed report of the normal school made for the year ending June 30, 1891.

The commencement exercises were held at the Franklin building. These exercises were under the supervision of the superintendent, Hon. W. B. Powell. Addresses were made by Dr. F. R. Lane, principal of the high school, Dr. A. D. Mayo, Boston, Mass., Mr. I. Fairbrother, supervisor of the fourth division, and Hon. J. T. Mitchell, president of the board of education. The diplomas were conferred by Hon. J. T. Mitchell.

Allow me, in behalf of the faculty of the normal school, to make grateful acknowledgment to you for every act of interest and encouragement which you have given.

Respectfully,

IDA GILBERT MYERS.

Hon. W. B. POWELL,  
*Superintendent of Public Schools.*

## DRAWING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit the following report for the year ending June 30, 1892:

## SUPERVISION.

Some changes were made in the method of supervision. An additional teacher was provided, thus giving to supervision the entire time of two assistants.

Miss North also gave as much of her time as could be spared from her duties in the Normal school and Business high school. Eight buildings were assigned to her, the remainder being assigned respectively to Miss At Lee and Miss Shipman. This allows for one visit to a school in each month. These visits were supplemented by those of the directress, who visited each school as often as time permitted. The assistant in these visits is expected to see a lesson in progress and to give all needed assistance to the teacher. Her own judgment must guide her respecting the way of doing this, whether by criticism, by instruction to the teacher, or by a lesson to the school. The purpose of the lesson to the pupils, when one is given, is to guide and instruct the teacher, not to do substitute work for her; it being a fundamental principle in our work that drawing is taught by the regular teacher.

The assistants found it advisable to give numerous lessons in clay modeling, as many teachers did not feel confidence in their own ability to deal with the subject, but were commendably anxious to begin right and to pursue the best methods.

I may be permitted here to record a word of commendation for the assistant teachers who were untiring in their efforts to put the clay modeling on a right basis. Clay modeling has been beset with difficulties, but by the united efforts of the teachers and the drawing supervisors, sustained by the supervising principals and the superintendent, our schools have demonstrated that there are possibilities of artistic development through the use of clay not attainable by drawing alone.

The problem of adequate supervision of the county schools has received its share of attention. The Tenlytown, Mount Pleasant, Brightwood, Hillsdale, Van Buren, Wilson, Monroe, and Mott schools were included in the regular plan. The more inaccessible schools received such attention as was made possible through the courtesy of the supervising principals, Mr. Keene and Mr. Freeman. All county schools were visited by the directress once, and by the assistants twice during the year.

## TEACHERS' MEETINGS.

Twenty-seven meetings were held by the directress. The subject of form study was also presented in eight meetings, called by the superintendent for general instructions to teachers. In addition to this the assistants have held meetings in their respective divisions for giving instruction in clay modeling.



## MATERIAL.

The first and second grades have been supplied with models, tablets, and sticks put up in boxes, so that for the first time they were able to handle, compare, and arrange perfect models. This has been very helpful. The helpfulness of these appliances will be more marked next year, as they can be used from the beginning of the year.

Models, one set to every four pupils, were also supplied to the third and fourth grades. These were helpful, but the supply should be doubled at least. With a full set of models, representation of the apparent forms could be attempted in these grades.

It is desirable that the ability to see and to represent foreshortened planes should be acquired earlier than is now done, but it must be done on the basis of pure seeing without theory. It would be folly to attempt it without plenty of models, as the result would be that the teacher would explain to the child how to see and how to represent. Thus taught, the purpose of the work would be defeated. With models in the hands of each child that can be held in different positions and carefully observed, the child can be led even in the first year of school to see something of variations of form and also something of light and shade.

Give us models for each child and let us see what can be done in this direction.

In the third and fourth grades the experiment of using blank paper instead of books was tried. I can not say that the results were altogether satisfactory; but in justice it should be said that the experiment did not receive fair trial. No printed outline was supplied to take the place of the text book, teachers having to depend for a knowledge of what to do on instructions received in teachers' meetings and from the visiting teacher. These instructions being oral, details were liable to be misunderstood or forgotten. Teachers' meetings are invaluable. They can be made to give life and unity to work. At them methods can be discussed and special subjects can be given the attention they demand; but teachers' meetings are not suited to the presentation of a course of study. The time of the special teacher when visiting should be given to discovering and to strengthening the weak points of the teacher visited. The regular teacher being fully occupied with her class, the time is not favorable for general instructions.

A printed outline of some kind seems a necessity. Any tendency which it may have to narrow the work can and will be counteracted by the right kind of supervision appealing to the intelligence of teachers.

The absence of slates in the lower grades was noticeable last year. This was, we think, favorable to the drawing in some respects, but in one way it was inimical. The children having paper only for the limited period assigned to drawing, lost all opportunities for voluntary practice which the possession of slates formerly gave them.



A course in color was arranged for the first five years of school, which will be improved and more carefully graded the coming year. The lessons will be given throughout the year, but will occupy very little time. The object of the work in color is to develop the color sense, gradually leading the child to discover resemblances and differences between hues, tints, and shades; to make color scales, and to learn to appreciate and make good combinations of color. Colored papers carefully prepared for this purpose were provided. There has been no attempt yet to provide material for this instruction in the higher grades. The possibilities for excellent work in the higher grades, however, are much greater than would be supposed by anyone who has not examined the range of hues, tints, and shades, provided by Mr. Prang for this purpose. His long experience in the manufacture and use of color has given incalculable aid in the effort to provide materials for color instruction in schools. The success must be conceded by anyone, who with knowledge of the subject, carefully examines the results.

#### ILLUSTRATIVE DRAWING.

Perhaps the most decided advance that has been made by teachers the past year is in the employment of drawing for illustrating other subjects taught in the schools.

Teachers have encouraged the children to express by drawing the ideas of form developed in the plant and animal lesson; when writing on these subjects the two forms of expression go hand in hand. If any skill in drawing has been acquired this is certainly the place to show it. It is a practical application of the skill acquired, which should give an added incentive to its acquisition.

While the drawing teachers have encouraged this work they have not undertaken the direction of it.

My own inclination has been to observe the results of these efforts that I might see where the child is and what he does without guiding. In first year work where little or no skill has been acquired, there is opportunity to find out how much help to true expression observation alone gives, and thus to decide how much help may be given the learner without interference with a free expression of his ideas.

It is profitable to know what the natural impulse of the child is when he is asked to make a picture of anything present. Will he look, and try to express what he sees in the object, or will he attempt to record impressions retained in memory, of what he has received from pictures, descriptions, or like objects seen before? Should we, while his ideas of proportion are comparatively undeveloped, encourage him to express the whole or only the part observed? Meanwhile the illustrative work will, I hope, be continued, not doubting that we shall find our part in the work, if we are humble enough to admit that we have about as much to learn from the child as he has from us.

## HIGH SCHOOLS.

Facilities for instruction in drawing are increasing in the high schools to keep pace with the constantly increasing number of pupils which they are called on to instruct.

Five capable and hard-working teachers are kept busy for five days, and one for two days each week.

The Central high school occupies three drawing rooms and the intervening corridor. The special classes have two periods a week for lessons, and, being composed of volunteers, who take special interest in the study, reach a high standard of excellence. A majority of those who take this course are fitted for entrance into any art school or for giving valuable service in any business where skill in drawing is required.

The plan of making the subjects of the third year elective, while very valuable to the other graduates, is not adapted to the best training of those who enter the normal school. It might be advisable to add a fourth elective course for these aspirants. The result might be that many would enter this class who now drop into the regular classes under the mistaken idea that drawing is not as essential to their success as the other studies. If such an arrangement would add to the efficiency of the teaching force it certainly deserves consideration.

The regular classes will never attain to a high standard of excellence, considered from a high-school standpoint, while their time for instruction is limited to one period per week, the good effects of a lesson being partially dissipated before it is supplemented by the next. The work in the Eastern high school has been cramped by conditions unavoidable while waiting for the completion of the new building.

Miss Chester has been indefatigable in her efforts to do all that was possible, which warrants us in looking forward with confidence to the time when we shall be in possession of more room and better facilities.

The Western high school was supplied with a good room, convenient desks, and some new material, all of which contributed to make the year pleasant and profitable.

In the Business high school the regular classes were abolished and the study of drawing was made elective. The time was given to mechanical drawing. A very excellent course was given. I would suggest that if more time were given to free-hand drawing it would add to the efficiency of the graduates. The pupil who thinks of fitting himself for a mechanical draftsman is often inclined to think that he can get along without free-hand sketching, and so desires to omit it, but all experience shows that he is but half equipped for practical work who depends entirely upon his skill in the use of instruments.

## NORMAL SCHOOL.

The division of the normal school into two sections made it necessary for the drawing teachers to give double time to this school. The



result, however, compensated for this, as the arrangement permitted the attendance of the entire class at each lesson. We feel, therefore, that the graduates should be well fitted for teaching drawing in their respective schools.

The services of the newly appointed assistant supervisor were in every way satisfactory. A first year's experience is necessarily trying, but Miss Shipman has given evidence of the possession of qualities that, strengthened by experience, will make her successful in this line of work.

Permit me to express my appreciation of the cordial coöperation of the supervising principals and teachers in all efforts to enlarge the scope and raise the standard of excellence in this branch of study, and also the gratification that I feel in seeing that so many recognize its vital connection with a general development.

I gratefully recognize in this the influence of your own convictions and counsel. Without these and the necessary materials, which through your efforts have been supplied to the schools, the present status could not have been attained.

Very respectfully,

S. E. W. FULLER,  
*Directress.*

Hon. W. B. POWELL,  
*Superintendent Public Schools, Washington, D. C.*

---

#### MANUAL TRAINING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: In brief, I may say that in the past year there was more and better work done than ever before. I feel that it is to you a subject of congratulation that this is but a repetition of the idea in my last report. Excellence is not to be attained or retained except by continued and continuous effort, especially in a branch where the standards first formed are pushed up and on with each year's work, and at the same time, in various ways, are changing in character.

The work of our fifth year of progress is now not merely the good result of past effort, it is an inspiration for another journey over the same route and a guide to rely on for a further advance. So long as this is the case we shall not come to a standstill in our progress toward a proper standard, and may feel confident of doing our share in the determination of that standard.

The unifying effect of our manual has been much enhanced by teachers' meetings, held at intervals determined by the progress of the work. In these meetings freedom of discussion was indulged to the end that a proper union of theory and practice might obtain in the results. These discussions were of mutual advantage and will prove a means of strengthening weak points, otherwise difficult to reach.



One of the changes made this year was the increasing of the time given to the work in the county schools. This change has been of especial benefit in the colored schools where the attendance is very irregular in the last part of the year, when the results of the practice work are beginning to be shown. The increase in time has enabled a very creditable showing of special work to be made. The course in these schools has also been given more of a utilitarian trend. In many a home exist substantial articles of every-day use made in our shops. The aim is to cultivate a taste or desire for the good as against the poor, whether in utility, workmanship, or design. I hope that these particular schools will, in spite of the various obstructing circumstances, soon show more largely the effect of the special attention and thought given them.

In connection with the work in the seventh and eighth grades, I wish to call attention to the need of a better understanding on the part of the teachers of these grades respecting the compulsory nature of the training for all their boys. I recommend that permission to omit or drop the work be obtainable from supervising principals only. There is also need of greater care on the part of these same teachers in reporting to manual-training instructors the names of pupils who leave school or from other causes cease attending the manual-training classes.

The report upon manual training in the Central high school deals amply with the past year's work, but I desire to emphasize here the statements regarding the excellence of the work in forging. It showed the greatest advance of the year, and was especially praiseworthy.

In my report of last year, I referred to the needs of the high-school grades of the training. While still believing in and predicting the future there indicated, I desire to urge, for immediate consideration, the establishment of a distinct manual-training course in the Central high school. This would prevent the confusion incident to the individual attempts of all boys desiring the work to include it in their programs with the least possible interference with other studies.

If manual training is worthy a place in a high-school curriculum it certainly should not be left to shift for itself, to receive attention *after* all other branches have been arranged for. It should have, at least, the justice of having its needs considered *with* those of equally important studies. But as this question of importance is answered variously by those seeking instruction, and as with some, manual training is, with kindred studies, among the first to be selected, it should be given a recognized standing in a course. This would at once settle the question of program for the pupils, and thus would be avoided much irregularity and many interruptions. Only in this way can all be accommodated and justice be done pupil and work. It would have the effect of increasing the number electing shop practice, and would be a step in the direction of the larger future, which must be kept in mind if the work,

as established, is to be allowed to develop. If our school system is to keep pace in this work with those of other cities, every need must be met, every evidence of growth must be fostered.

It remains for me to thank you for your sympathetic interest, and appreciative and valuable suggestions.

Respectfully submitted.

J. A. CHAMBERLAIN,  
*Director.*

W. B. POWELL,  
*Superintendent.*

### PHYSICAL CULTURE.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I submit herewith my report for the year ending June 30, 1892:

It seems unnecessary to repeat the aims and purposes of physical training as carried on in our schools. These, together with the subject of the system in vogue, have been clearly set forth and discussed in previous reports. However, a brief recapitulation may not be amiss.

*General aim.*—The general aim is to secure that perfect condition of the body conducive to its best use in everyday life.

*Specific aims.*—(1) Health; (2) good carriage of the body; (3) symmetrical development; (4) grace; (5) a good speaking voice.

### GENERAL GROUPING OF EXERCISES.

According to the purposes of the exercises, and the principles upon which they are based, the following general grouping can be made:

(1) *Stretching exercises.*—These counteract the effect of overuse of the flexor muscles.

(2) *Strengthening exercises.*—These are given to make the muscles obedient to the will, and secure organic perfection of the body. In a daily lesson these are taken in the order of the parts of the body, thereby tending to secure an even development.

(3) *Relaxing exercises.*—By these the body is relieved of unnecessary tension. Many bad physical habits are overcome.

(4) *Exercises for grace.*—Graceful movements are seen and imitated by the children, thereby cultivating a love for the beautiful in motion.

(5) *Breathing exercises.*—Exercises in breathing are given:

(a) For the thorough expansion of the lungs;

(b) To gain control of the muscles used in respiration.

Thus control of the breath is obtained, making a basis for vocal work.

(6) *Vocal exercises.*—Exercises adapted to the grade are given in breathing, articulation, tone placing, and pronunciation. A good speaking voice is all that is sought.



The great question, "What is the best system of gymnastics for use in American schools?" has given rise to much discussion and contention on the part of the various advocates of the respective systems. An agreement will never be reached. The most advanced American thought on the subject seems to be that any foreign system must be changed and adapted to our American wants and needs.

In the interest of this department of our schools, we visited Germany and Sweden to see the practical application of their systems in the schools, to note the methods and observe the results.

After much study and conference with the best authorities on this subject, we believe that we have been right in not confining ourselves to one system; that all which has so far been attempted has been in the right direction.

The teaching of school gymnastics is a new profession in this country. Few cities have adopted a graded course of gymnastics. These cities with few exceptions have taken one of the foreign systems.

In our work we have strayed from the beaten track of the usual school gymnastics. We have considered the subject in the broad light of educators, not mere gymnastic teachers. We have considered physical culture in the public schools in its relation to other work in the school system. Each department of education should complement the other, and all tend toward the perfect man.

In the primary schools we have tried to make the exercises recreative, one step in advance of the kindergarten plays. Gymnastic games which call forth simple movements and natural attitudes have been introduced during the year. In this respect much which we have attempted has been original work. We have been carefully feeling our way, and at the end of next year hope to have printed a graded course of study.

#### COURSE OF STUDY.

A manual of physical culture which will present the work in its entirety is now in course of preparation. This will represent the result of four years practical application of the exercises to the schoolroom. It will contain the graded course with full and definite directions in regard to the same. As now planned there are four grades of work corresponding to the first and second, third and fourth, fifth and sixth, seventh and eighth grades.

#### SUPERVISION.

The plan of supervision adopted last year proved so satisfactory that it was continued this year. By this plan each health teacher has a certain number of school buildings under her charge for the year. In this way she knows personally both pupils and teachers. Each school is visited regularly once in twenty school days when a new lesson is taught.



## TEACHERS' WORK.

Printed lesson sheets containing full directions in regard to the exercises given to the class by the health teacher, and showing the average number of times each exercise should be taken, have greatly aided the teachers in remembering the exercises and securing better work from the children.

Those teachers who have carefully observed the lesson as given, studied the printed lesson sheet, and conscientiously given the exercises with regularity have secured excellent results. These teachers are in the majority. The cases of indifference have been few.

Two months before the end of the year, a daily programme was printed, reviewing all the exercises given during the year. This daily programme contained an exercise for each part of the body, together with a breathing and vocal exercise.

The last visit of the health teacher was one of observation, for testing the work of teachers and pupils. A lesson being given by the regular teacher, the following points were noted:

- (1) Ventilation.
- (2) Positions: { Eyes.  
Head.  
Chest.  
Hands.  
Feet.
- (3) Accuracy: { (a) Of class as a whole:  
(b) Of individual pupils
- (4) Method of teacher.
- (5) Uniformity.
- (6) Quietness.

As the result of such observation the following report was made of the schools taught regularly during the year:

Excellent .....	267
Good .....	149
Fair .....	42
Poor .....	5

## TIME.

No other branch of school work demands the regularity in daily work for its accomplishment that is necessary to carry out the idea of physical training in its broadest scope. In all other branches the resultant cultivation at the end of a certain time is what is sought. In physical training, however, the best results come only by regular daily work. In this respect the great majority of teachers have been most faithful. However, we feel that the importance of this point can not be too strongly urged. The average amount of time, eighteen minutes daily, as laid down in your schedule of work is sufficient to meet all the demands of the work as now planned. We would suggest that this amount of time be placed on the daily program of the teacher at 2 o'clock p. m. and be given with the regularity of the daily recess.

## NORMAL SCHOOL.

Each member of the normal class received instruction one hour each week in physical culture. Special attention was given to the teaching of school gymnastics. Model lessons were observed by the class. Other lessons were given by pupil teachers for criticism by the entire normal class. In this criticism a given outline was followed. Weak points in the lesson were noted and avoided in future lessons. Thus the necessary qualifications of good gymnastic teaching were impressed upon the minds of the future teachers.

At the end of the school year the normal pupils were tested in the work, and a report given to the principal of the normal school.

## CONCLUSION.

In conclusion I wish to call your attention to the work of the assistant teachers of physical culture, Miss Coleman, Miss Squire, and Miss Brockett. It is doubtful if more faithful teachers can be found in the entire teaching corps.

To the regular teachers is greatly due whatever success the work may have attained, and to them I am most grateful. Permit me to express to you my appreciation of your helpful advice and kind words of encouragement.

Very respectfully,

REBECCA STONEROAD,  
*Directress of Physical Culture.*

Mr. W. B. POWELL,  
*Superintendent of Public Schools.*

---

---

SUPERINTENDENT COOK'S REPORT.

---

---





## SUPERINTENDENT COOK'S REPORT.

WASHINGTON, D. C., September 30, 1892.

*The Board of Trustees of Public Schools of the District of Columbia:*

GENTLEMEN: Herewith is presented the report of the schools of the seventh and eighth divisions of the public schools of the District of Columbia, generally known as the colored schools of Washington and Georgetown, for the school year ending June 30, 1892.

With this report are also submitted the reports of the supervising principals, the principals of the High and Normal schools, the directors of music, drawing, and manual training, and the directresses of sewing, cooking, and physical culture.

In the following tabulated statement, statistics showing both the classification of the pupils embraced in the enrollment and the number in each class, with other information, are presented in fuller detail.

The whole number of pupils enrolled was 12,280. They were enrolled as follows:

Normal School .....	27
High School .....	407
Total .....	434
Grammar schools:	
Eighth grade .....	414
Seventh grade .....	683
Sixth grade .....	750
Fifth grade .....	1,080
Total .....	2,927
Primary schools:	
Fourth grade .....	1,510
Third grade .....	1,987
Second grade .....	2,162
First grade .....	3,260
Total .....	8,919
Grand total .....	12,280

966 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

The entire number of schools in these two divisions was 213. They were classified as follows:

Normal School .....	1
High School .....	1
Total .....	2
Grammar schools:	
Eighth grade .....	8
Seventh grade .....	11
Sixth grade .....	14
Fifth grade .....	20
Total .....	53
Primary Schools:	
Fourth grade .....	26
Third grade .....	*36
Second grade .....	†40
First grade .....	†56
Total .....	158
Grand total .....	213

The whole number of teachers employed was 244, of whom 215 were female and 29 male. They were employed in grades, as follows:

Supervising principals .....	3
Normal School .....	4
High School .....	17
Grammar schools:	
Eighth grade .....	8
Seventh grade .....	11
Sixth grade .....	14
Fifth grade .....	20
Primary schools:	
Fourth grade .....	26
Third grade .....	35
Second grade .....	38
First grade .....	46
Teachers of music .....	2
Teachers of drawing .....	3
Teachers of carpentry .....	4
Teachers of metal working .....	1
Teachers of cookery .....	4
Teachers of sewing .....	6
Teachers of physical culture .....	2
Total .....	244

\* One under instruction of assistant teacher in normal school.

† Two under instruction of assistant teacher in normal school.



## The cost of schools for supervision and teaching:

Superintendent .....	\$2, 250. 00
Clerk .....	800. 00
Supervising principals, 3 at \$2,000 .....	6, 000. 00
Messenger .....	200. 00
Total .....	9, 250. 00
Cost per pupil (estimated on the average enrollment, 9,940) .....	.93

## TUITION.

## Normal School:

Principal .....	\$1, 500. 00
One teacher .....	800. 00
One teacher .....	750. 00
One teacher .....	700. 00
Total .....	*3, 750. 00
Cost per pupil (estimated on the average enrollment, 25) .....	48. 00

## High School:

Principal .....	1, 800. 00
Sixteen teachers .....	13, 020. 00
Total .....	14, 820. 00
Cost per pupil (estimated on the average enrollment, 364) .....	40. 71

Grammar schools (8 eighth, 11 seventh, 14 sixth, 20 fifth grade schools) ..	42, 825. 00
Cost per pupil (estimated on the average enrollment, 2,361) .....	18. 13
Primary schools (26 fourth, 36 third, 40 second, 56 first grade schools) .....	†74, 863. 38
Cost per pupil (estimated on the average enrollment, 7,190) .....	10. 77
Special teachers (2 music teachers, 3 drawing teachers, 2 physical culture teachers) .....	5, 510. 00
Cost per pupil (estimated on the average enrollment, 9,940) .....	.55
Teachers of manual training (carpentry, 4; metal working, 1; cookery, 4; sewing, 6) .....	10, 450. 00
Cost per pupil (estimated on the whole enrollment, 3,869) .....	2. 70
Average cost per pupil for tuition in all the schools (based on the average enrollment, 9,940) .....	15. 31

The following embrace, among other statistics, the average salary per teacher, the total cost of instruction, including supervision, and the amount paid to janitors:

## NORMAL SCHOOL.

Number of teachers trained .....	27
Average attendance .....	25
Number of teachers employed .....	4
Average salary .....	\$937. 50

## HIGH SCHOOL.

Number of pupils enrolled .....	407
Average enrollment .....	364
Average attendance .....	349
Per cent of attendance .....	95. 8

\* Including the cost of teaching five practice schools, \$2,550.

† To be increased by the cost of teaching five practice schools, \$2,550.

# 968 REPORT OF COMMISSIONERS OF DISTRICT OF COLUMBIA.

Average number of tardiness per month .....	20.4
Number of pupils dismissed .....	0
Number of teachers employed .....	17
Average salary paid .....	\$871.76
Cost of tuition per pupil (estimated on the average enrollment) .....	\$40.71

## GRAMMAR AND PRIMARY SCHOOLS.

Number of pupils enrolled.....	11,846
Average enrollment.....	9,551
Average attendance.....	9,014
Per cent of attendance.....	94.3
Average number of tardiness per month .....	359.1
Number of pupils dismissed .....	5
Number of cases of corporal punishment.....	110
Number of teachers employed .....	198
Average salary paid.....	\$594.38
Average number of pupils to the teacher (estimated on the average enrollment).....	48.2
Cost of tuition per pupil (estimated on the average enrollment).....	12.32
Number of pupils in <i>all</i> schools.....	12,280

## SPECIAL TEACHERS.

Drawing.....	3
Music.....	2
Teachers of physical culture.....	2
Average salary paid:	
Drawing.....	\$720
Music .....	1,000
Teachers of physical culture .....	675
Average cost per pupil for special tuition (estimated on the average enrollment) .....	.55

## SUMMARY.

Total cost of instruction, including supervision.....	\$161,468.38
Whole number of pupils enrolled .....	12,280
Average enrollment .....	9,940
Average daily attendance .....	9,388
Average cost of instruction, including supervision, estimated on:	
(1) Whole enrollment .....	13.14
(2) Average enrollment .....	16.24
(3) Average daily attendance .....	17.19

## JANITORS.

Total amount expended .....	\$12,905.67
-----------------------------	-------------

## ATTENDANCE.

The whole number of pupils enrolled in the schools during the year was 12,280. The increase over the entire enrollment of the previous year was 148. This is less than that of 1890-'91 over the year that preceded. It affords no occasion, however, for surprise to those con-

versant with the records during the past years. Similar results have been witnessed in other years. There is usually to be found compensation in the very large increase in the succeeding year. In exemplification attention may be directed to the annual increase of each year during the last six years. Beginning with the year 1886-'87 and ending with the year 1891-'92, the increase in each year over that of the preceding year was, respectively, 207, 675, 130, 268, 694, and 148, and the per cents, respectively, 2.04, 6.51, 1.18, 2.40, 6.07, and 1.22. The annual average increase for the six-year period named was 352.

The average number of pupils enrolled was 9,940 and the average number of pupils in daily attendance, 9,388. In the former there were 238 and in the latter 225 more than in the previous year. The per cents of increase in these two items of attendance are proportionately much greater than that for the entire enrollment. In the less disparity than is usual there is to be recognized fuller enjoyment of the privileges of the schools on the part of the whole number enrolled. Its indication of a more permanent degree of attendance makes possible more efficient school work.

The per cent of attendance based on the average enrollment was 94.4, the same as that of the preceding year. It is good, and in simple continuation of that which has prevailed in the schools for a long series of years.

The cases of tardiness for the year were 4,109, or 41 to every 100 pupils. When, in considering the number of school days to the year, attention is drawn to the possible number of cases, this number is comparatively insignificant. There can scarcely be anything more flattering or creditable to this part of the population than the high degree of regular and punctual attendance maintained year after year, and that despite adverse circumstances in life second to those of no other class of the population. Through much and persistent effort in the earlier years the way was prepared for such results, and in the habit to regularity and punctuality now largely confirmed, the effort to maintain it is not very great.

The fluctuations in attendance are yet considerable, though less than in the preceding year. It is recognized that these must always be determined largely by the health conditions of pupils, and, perhaps, not less by such conditions as are imposed by adverse circumstances. In the increasing years of the schools, the latter factor has found, and it will continue to find, much elimination in the improving material condition of the people. It can never be wholly removed. Though not to so great extent as in the two preceding years, there was considerable sickness among the pupils, especially those ailments to which children generally are susceptible.

The following table, in which is shown the number of pupils on the rolls the last day of each month in the school year, gives an idea of the changes.



[Normal School not included in this table.]

Month.	Pupils on the rolls the last day of each month.			Average number to the teacher.			Average number on roll each month.			Average number to the teacher.		
	1891-'92.	1890-'91.	Increase.	1891-'92.	1890-'91.	Decrease.	1891-'92.	1890-'91.	Increase.	1891-'92.	1890-'91.	Decrease.
September .....	10,544	10,418	126	49	50	1	10,054	9,788	266	47	47	.....
October .....	10,783	10,602	181	50	51	1	11,028	10,710	318	51	51	.....
November .....	10,658	10,543	115	50	51	1	10,798	10,662	136	50	51	1
December .....	10,154	10,039	115	47	48	1	10,335	10,188	147	48	49	1
January .....	9,714	9,733	.....	45	47	2	9,869	9,981	.....	46	48	2
February .....	9,697	9,337	360	44	45	1	9,791	9,564	227	45	46	1
March .....	9,478	9,204	274	43	44	1	9,681	9,269	412	45	45	.....
April .....	9,248	8,945	303	42	43	1	9,431	9,097	334	44	43	.....
May .....	8,973	8,647	326	41	42	1	9,139	8,795	344	42	42	.....
June .....	8,833	8,550	283	41	41	.....	8,892	8,599	293	41	42	1

From the above table may be gained a fair idea of these changes or fluctuations from month to month, both in the number of pupils on the rolls the last day of the month and in the average enrollment. In both items the greatest enrollment was in October and the least in June. The difference between that of the first month named and that of the last was about 2,000 in each item, and the average monthly decrease for the period embraced by the two months was about 250. In the former item the average number of pupils to the teacher was nearly 45, and in the latter 46. In each it was about 1 less than in the previous year.

The following table shows the entire and the average enrollment of pupils and the number of pupils in daily attendance, each with per cent of increase and the per cent of attendance based on the average enrollment for the last ten years:

[Normal School not included in this table.]

Years.	Whole number enrolled.	Per cent of in- crease.	Average number enrolled.	Per cent of in- crease.	Average daily at- tendance.	Per cent of in- crease.	Per cent of at- tendance.
1882-'83 .....	8,710	5.07	7,070	4.53	6,815	4.26	96.2
1883-'84 .....	9,167	5.24	7,225	2.19	6,895	1.17	95.5
1884-'85 .....	9,598	4.70	7,689	6.42	7,287	5.68	94.9
1885-'86 .....	10,138	5.62	8,191	6.52	7,756	6.43	94.6
1886-'87 .....	10,345	2.04	8,448	3.13	7,956	2.57	94.2
1887-'88 .....	11,000	6.33	8,754	3.62	8,266	3.89	94.4
1888-'89 .....	11,130	1.18	9,049	3.36	8,549	3.42	94.5
1889-'90 .....	11,398	2.40	9,250	2.22	8,728	2.09	94.3
1890-'91 .....	12,106	6.21	9,679	4.63	9,140	4.72	94.4
1891-'92 .....	12,253	1.21	9,915	2.44	9,363	2.43	94.4

In its concise form this table not only permits easy reference to the enrollment of the school population during the last ten years, but also

ready inference of growth of the schools from year to year. In it there is much of hope and promise.

The average per cent of attendance for the period of ten years is nearly 95, and is sufficient in itself to favor the conclusion that the schools have the appreciation of the people.

#### SCHOOL POPULATION.

By the census taken by the police, under the direction of the honorable Commissioners of the District of Columbia, June 30, 1892, the entire school population of the District of Columbia is 54,998. Of this population 18,726, or 34 per cent, are colored children. About 88.52 per cent of these colored children, between the ages of 6 and 17 years, inclusive, live in the cities of Washington and Georgetown, or the seventh and eighth divisions of the public schools of the District of Columbia. The whole number of pupils enrolled last year, which was the largest enrollment for any one year in the history of the schools, was 12,280. The difference between this enrollment and the entire colored school population residing in the two cities is about 4,296 which shows the number of colored children of legal school ages who received no direct benefit from the system of public schools; and as private and parochial schools among this population are too limited, either in number or enrollment, to present appreciable significance, nearly this entire body of children received no instruction whatever. This large want of instruction imposes upon the community a large degree of illiteracy which, with the large degree that has already accrued from the lack of opportunity and provision in the past, presents a question of concern not graver to the victim of it than to the community.

The question naturally arises, What means are necessary to remove this evil and thus to avert the ill consequences which, in the absence of removal, must sooner or later follow? The usual answer is, educate compulsorily. The wise course first to pursue, however, is to ascertain positively to what extent such means may be necessary. The degree of enrollment of the school population in the schools has not been due to any special effort to effect it. It has been perfectly voluntary, the result of the natural working of the system. It has thus far been sufficient to engage all the teaching force provided for the schools and, in number, greater than that of proper sitting provision. These facts rather indicate the necessity for first making ample provision, both in teaching force and in accommodation, before any serious resort to the enforced enrollment of the nonattendants of the school population is made. Though it is probable that among the large number of nonattendants there would be found many obstinately indifferent, it is believed there would be found more that could, with comparatively little effort, be brought into the schools. The enforced attendance at school of any class of the school population will, for its success, depend



very largely upon the sentiment of the community; therefore, before resort is made to it, all suasive means at command to effect voluntary attendance should be exhausted.

Compulsory attendance will be attended with hardships and difficulties in the loss of service in the effort to eke out the scanty livelihood of the household, in the want of proper clothing, and in other ways. There is reason, however, to believe that, when ample provision has been made to meet the needs of the entire school population, means will be at hand, in a community given largely to charitable deeds, to remove many of the obstacles to the enforcement of a compulsory law, to the enforcement of any righteous enactment of tendency to lessen the vice and crime now so prevalent in this community, and which, without doubt, largely arise from the want of timely and proper training of the young.

In addition to the large number of the school population not provided for, there are thousands of children of four and five years of age daily neglected by force of poverty and other adverse circumstances. By proper training such bent could be given to their constant activities as would afford promise of moral, intellectual, and practical manhood in later life. In our crowded alleys and in those sections of the city in which abodes of poverty most abound, are to be found, at all hours of the day, many of these of tender age, too young to enter legally our public schools, and yet too old to have their parents' care, protection, and direction, on account of their constant struggle with poverty for the sustenance of life. In these earlier years of life, in which impressions have greatest formative power in determining future character, children of these ages should be thrown under the best influence and direction. On this border-land, as it were, between the neglected home and the public school, where are always present great susceptibilities to vice and crime, there is not only a large but a ripe field for the kindergarten.

#### SCHOOL SITES AND ACCOMMODATION.

The selection of school sites for these divisions imposes much care and responsibility. It not unfrequently occurs that a considerable portion of this population is thinly scattered over a large area. In the aggregate, though not at any one point, it is sufficiently large for an eight-room school building. The greatest degree of accessibility may, to meet present demands, favor the location of two or more buildings of less sitting capacity, but this is opposed not only by economy, but by such school grading and classification as tend to attainment of good results, as well as by due consideration of future probabilities as to the increase of the school population. In such instances the custom has been to select a site with view to affording accommodation as accessible to all within the large area as the conditions will permit, and, to



extent possible, with such distance relation to other school buildings as will afford relief to them when overcrowded.

The only increase in accommodation for the year was an eight-room building. It was completed in May, and named Logan, in honor of Gen. John A. Logan. This building is situated at the southeast corner of G and Third streets Northeast. Prior to its location there was no school building for colored children in the large area bounded by First street west, Eleventh street east, B street south, and Florida avenue, an area about a mile square.

The colored population in this section is not very large, but it is increasing. The increase is favored largely by the cheaper rents than those offered in many other sections of the city. Hence a very important factor in the selection of all school sites for these divisions is the degree of promise of cheaper conditions of living; for, though many of this population have their own homesteads, and this number is increasing, the facts that by far the larger part of it rent and that their circumstances naturally direct them to those sections of the city where good degree of comfort and convenience are within reach of small or moderate means, can not be lightly regarded.

It is also recognized in the selection of sites that progress is favored by contact with conditions of tendency to elevate. In the lift to higher moral planes the attraction will be not to, but away from, the alley and kindred places of abode. Not in the congregation of ill conditions, but in their segregation, and in environment of good conditions, is to be found promise of betterment physical, moral, and intellectual.

The school buildings of these divisions in construction and general fitness for purpose, afford, with few exceptions, good accommodation and facilities. The exceptions are principally confined to the buildings of earlier construction; and of this class the Stevens and Anthony Bowen are the most objectionable. Though attention was called to these buildings in my last report, I feel that, in the absence of remedy or any action looking thereto, their condition is sufficiently grave as again to invite attention to them, which I do by simply repeating what was then said, with added remark that delay only intensifies the disadvantages resulting from the present ill conditions.

The Stevens which was erected in 1868 presents a striking instance of these exceedingly ill conditions. The building seems prematurely old, which is without doubt due to the cheap and indifferent material with which it was constructed. The light and ventilation are of the worst character, both of which have been aggravated by the wing additions erected several years ago. The four schoolrooms on the third floor have been abandoned as unfit for further use. The floors of the remaining eight rooms of the original structure have become so thinly worn as to menace limb, if not life. This building occupies the center of a thick school population, and even with its much unfit accommodation presents not enough to meet the demands for admission, save through reducing schools of third grade to half-day sessions. To remove these objectionable conditions the old original structure should be razed and rebuilt, so as to afford twelve good schoolrooms, as originally intended.

The Anthony Bowen building, in objectionable features, is next to the Stevens. It is the oldest of present school buildings, having been erected in 1867. An outward view of it suggests but little, if anything, of the school building. It has eight schoolrooms without cloakrooms, thus necessitating the hanging of the wraps in the schoolroom, and thereby vitiating to yet greater extent the air. It is heated by stoves, and the means for ventilation are of crude character. The stairways are so steep in rise and narrow in tread as to offer constant danger to limb and life in case of panic.

The overcrowded condition of the Lincoln, Giddings, and Bell buildings but adds emphasis to my recommendation last year, that another building be located in southeast Washington. The recommendation was based not only upon the crowded condition of the buildings named, but also upon the absolute want of any kind of school provision in a very large area of the city, and from this want the enforcement of many children of school age into a state of illiteracy.

In addition to the repetition of my recommendations last year, I would also recommend that an eight-room building be located in eighth division A. This building is needed to afford relief directly to the Garnet building in which, during the last year not only all schools of first and second grades, but those of third grade were forced to half-day sessions. It would also afford relief indirectly to the Garrison and Cook buildings, as well as offer accommodation for new admissions.

These recommendations are all in the line of absolute present necessity. That the desired accommodation should appear great is easily accounted for by the fact that last year no new provision was given, and the year before but one eight-room building. The apparently large want is simply the accumulation of smaller wants through the absence of seasonable annual provision.

This want of suitable provision necessitates, in large numbers, the use of one seat by two pupils, at different hours of the day. This can be borne without very serious inconvenience during the first two years of the school course, but for the third or any subsequent grade the disadvantages it imposes are sufficiently great to retard and imperil proper school work. Thus far the recommendations for more accommodation have been made simply with view to the removal of these disadvantages and to afford accommodation for the annual increase in school enrollment.

The sanitary condition of very many of the school buildings is such as to create concern, and especially in the presence of diseases of contagious character. The walls, ceilings, and painted surfaces of most of these buildings have not been renovated for years. The custom that prevailed in the earlier years of the schools of calcimining and whitewashing annually the interior surfaces of the buildings has, unfortunately for the good health of pupils and teachers, been long since abandoned. No appropriation could be more judiciously made than one that would permit the revival of the past custom. This want of proper sanitary condition is also to be deplored on account of its



perniciously educative tendency. The education of environment is of recognized potentiality. The silent training of the schoolroom itself into the habit of cleanliness should not by neglect be underestimated, and the more especially where, in very many instances, it furnishes the only or principal means to such education.

Our outhouses should be models of their kind. In construction and arrangement they should not only provide comfort, but also promote decency. Some of these connected with the school buildings of earlier erection do neither, and in these respects they present just cause for adverse criticism. The long existence of, and forced familiarity with, an evil may so harden the sensibilities of the child as to preclude realization of its enormity, but not without great tendency to the debasement of his moral nature. Immediate and decided steps should be taken to remove these evils wherever they exist.

#### SCHOOLS AND SCHOOL WORK.

There were in all 213 schools, classified as follows: First grade, 56; second grade, 40; third grade, 36; fourth grade, 26; fifth grade, 20; sixth grade, 14; seventh grade, 11; eighth grade, 8; high school, 1; and normal school, 1.

Twenty-two schools of first and second grades were taught by 11 teachers, each with a school in the forenoon, and one in the afternoon. This double service was imposed because there were not teachers in number sufficient to restrict one to a school. The alternative would have been to deny admission to hundreds of children who had voluntarily sought admission. There was some compensation for this double service by giving to the teacher, whenever practicable, the maximum salary for the grade, and when not practicable as soon as it should become so, from resignation or otherwise. During the school year the withdrawals from some of these schools and other schools of same grade were sufficient to permit, in four instances, consolidation with other schools located in the same building. The number of schools of reduced session on account of the lack of accommodation was 84, of which 44 were of first grade, 33 of second grade, and 7 of third grade.

As has been stated quite fully in former reports, the disadvantages arising from this reduced time so as to permit one room to be used by two schools at different periods of the day are many, and gain as the schools advance in grade. Ample provision for the schools, both in teaching force and in accommodation, is the sole remedy; and it is only through it that such schools can enjoy fully the benefits of the system. Though there is nothing to record in the school work differing materially from that of the previous year, it may be said that there was continued growth along all important lines of work. The more rational methods of instruction continued to gain, and with good and improving results. Greater earnestness of effort in training to habits of self-reliant thinking, and discouragement of tendency to memoriter work,



from habits largely acquired in the past, are growing features in the school work.

In the intensely opposing counter education to habits of accurate speech and correct expression, so largely existent among this population from the force of past circumstances and present environments, good degree of excellence in language, oral or written, is not effected without much effort; but in greater attention to composition and the increasing active interest in topical study, aided by larger use of collateral matter obtained from reference books and otherwise, with a deepening impression that whatever is properly learned should be indicated by ability to express it in good English, there is very perceptible growth and advancement.

Not only in the intellectual, but also in the moral, there should be recognized much and important work for the schoolroom. Its scope is determined by the degree of culture and refinement the home brings to the school. The great lack of home culture and judicious discipline among very many annually enrolled in the schools gives to the schoolroom in this respect greater prominence. Influences, positive and negative, are constantly arising in the school, from its duties and exercises, from the personal bearing of the teacher, and from associations of fellow pupils, which could be given such conditions and bent as would result in high moral attainment. The opportunities to the teacher, both by precept and example, are not few for generous contribution to the formation of pure and noble character. Yet there is reason to feel that the school does not do all that it might do in this respect; that the opportunities for correcting the vices, little as well as great, and cultivating the virtues are often neglected; that the training when attempted is not always of such character as to lead the pupil to act from a sense of duty.

To the true teacher there is no higher qualification for her position than moral worth. She feels that no factor is so efficacious and potential as personal example; that more essential than scholarship and professional training for the complete training of the child is power to mold character, moral power known and felt by all within its presence; that in her should be the embodiment of all the virtues she would have her pupils possess.

#### SCHOOL LIBRARIES.

While recognizing the great and vital force of personal example in moral training, it can not be doubted that there is much in print to quicken to moral habit of life.

Through concerts and other entertainments some of the school libraries received last year additions to their volumes of previous years. These means have been found rather slow, as the amounts obtained in this way are not considerable, and especially when the large numbers to be benefited are considered. In the very large absence of public

provision of collateral matter through books, papers, and periodicals, and any provision without the pale of these schools, these pupils, in very large numbers, are without one of the best recognized means for broadening the view, which is so much a feature of current educational work. Were these at hand, under the direction of well-informed, enthusiastic teachers, the future would of necessity promise rich yield of fruit.

At present there is scarcely anything more to be deplored than the inability, from dearth of public or other provision, to give to teachers that degree of encouragement in certain lines of effort, which, at least reasonable provision of collateral matter, both for the desk, in easy summarized reference, and the school library, in special and fuller exposition of the subjects under consideration, would permit.

#### FREE TEXT-BOOKS.

The benefits of free provision of text-books, in the first four grades of schools, were perceptible in the more timely entrance into the schools at their reopening and in the better school work resulting therefrom. That there would be any considerable increase in the enrollment from this provision was not believed by those thoroughly conversant with the schools. The privileges offered by them have always been very eagerly embraced, and more especially by those of attainments restricting to the lower grades of schools. This has been effected in numerous instances through great struggle with poverty and often through much effort in the mastery of the pride that rebels against the acceptance of the free provision that always existed in the loan of books to indigent pupils. In this struggle there has ever been evinced a most commendable spirit of self-reliance, and from it has come training of most valuable character. There is reason to believe that comparatively few children ever remained out of these schools for the want of books, but from other causes which the schools were then, as they now are, powerless to remove. In this happy supplanting of the former "loan of books to indigent persons," by this free provision, all pupils of the grades for which such provision has been made are brought to the same plane; the feeling that one is an object of charity, so offensive to pride, and the retardation of instruction that, more or less, existed from the delay of parents in providing their children with the necessary books, are removed.

#### PHYSICAL CULTURE.

The last year was the second in which this subject has been taught generally and systematically in these schools. As in the previous year there were two teachers, one as directress, specially charged with it. The force is inadequate to the amount of work to be done.

At the beginning of the school year, courses, with good degree of



latitude permitted to the teacher to meet ages and physical conditions, were prepared and carried out. All grades of school, from the first to the high and normal, were visited and instructed by the special teachers twice a month. In the normal school attention was given both to theory and practice, with a view to fitting for imparting in this subject as in other subjects. The normal pupils were also visited while practicing in schools of first grades, to observe, criticize, and, if necessary, correct their presentation of this subject.

There was a good degree of improvement upon the work of the previous year. The coöperation of the regular teachers in carrying out the instruction of the special teacher was generally commendable. Where the coöperation was heartiest the results were more satisfactory.

#### DISCIPLINE.

So far as may be indicated by the punitive means used in the enforcement of discipline during the year, the statistics, in comparison with those of previous years, present very favorable record. The necessity for severe methods was very limited, and the milder cases that occurred were as a rule judiciously treated. Five pupils were dismissed from schools, and two of these were so disciplined from the requirement of the rule respecting the use and possession of firearms that admits of no choice in the punishment to be inflicted. The cases of suspension from the privileges of the schools were 183; and cases of corporal punishment were 110. The former were less and the latter more than in the preceding year. In neither, however, is the difference considerable. The resort to corporal punishment is not general among the teachers. There are many who never, and others who seldom resort to it. The aim constantly has been to impress upon teachers the necessity of judicious means of discipline, mild but firm, and of its attainment and maintenance through moral power rather than physical force, believing that in the employment of the more efficient and elevating power of reason and conscience, a sense of honor is cultivated among pupils, and the teacher, thus thrown upon moral resources, will more quickly acquire that tact, discretion, judgment, and self-command, which are so essential to governing with ease and effect.

The following table presents the cases of suspension, corporal punishment, dismissal, tardiness, in comparative view, during the last ten years:



[Normal School not included in this table.]

Years.	Average number of pupils enrolled.	Corporal punishment.		Suspensions.		Number of cases of dismissal.	Tardiness.	
		Number of cases.	Number of cases to every 100 pupils.	Number of cases.	Number of cases to every 100 pupils.		Number of cases.	Number of cases to every 100 pupils.
1882-'83 .....	7,070	157	2	330	4	8	2,035	28
• 1883-'84 .....	7,225	135	2	346	5	13	2,352	32
1884-'85 .....	7,689	186	2	319	4	8	3,462	45
1885-'86 .....	8,191	159	2	250	3	3	3,906	47
1886-'87 .....	8,448	110	1	187	2	4	3,345	39
1887-'88 .....	8,754	78	.....	226	2	9	3,720	42
1888-'89 .....	9,049	94	1	267	2	■	3,868	43
1889-'90 .....	9,250	70	.....	234	2	5	3,913	42
1890-'91 .....	9,679	93	.....	210	2	8	3,714	38
1891-'92 .....	9,915	110	1	183	1	5	4,109	41

### HIGH SCHOOL.

The new high-school building at the junction of M street and New York avenue was occupied at the reopening of the schools in September. This building has, in the excellent facilities it offers, removed the material difficulties under which this school has labored from its establishment or organization.

Not only in sufficient and suitable sitting capacity, for the present and for years to come, but in its laboratories and other conveniences, are furnished excellent aids to study and means to good scholarship.

What at present is most to be regretted is the entirely too limited equipment of its laboratories in apparatus, and as relief to any extent whatever must come from small allowances from the general contingent fund of the schools, the prospect is very poor for generous addition to it in any one school year. A special appropriation for apparatus would, in the better equipment of the school for much of the work expected of it, aid very materially its progress along certain lines of effort.

The whole number of pupils enrolled in this school was 407. The average number of pupils enrolled was 364; and the average number of pupils in daily attendance 349. In the entire enrollment there were 31 more than in the preceding year; in the average enrollment 19. The per cent of attendance, based on the average number of pupils enrolled, was 95.8.

June 22, 1892, 69 pupils were graduated from this school, of whom 54 had completed the academic course and 15 the business course.

The responsibility attached to this school is great. It can not exist solely in itself. Its influence for good or ill upon the system of schools of which it is a part is potential. As a goal to be reached its excellence in all essential respects should be so prominent and marked as to afford a stimulus to effort and proficiency along the lines of the entire

system, from the lowest to the highest grades. In its relation to the teacherships of these schools, which are very largely the products it evolves, it is impossible to overestimate its responsibility.

The detailed work of this school for the year is furnished in the principal's report to this office, which is herewith submitted.

#### NORMAL SCHOOL.

At the beginning of the school year there were admitted to membership in this school 26 young ladies, who, in the previous year, had been graduated from the academic course of the high school, and who, in the entrance examination, held June 4, 1891, had outranked all other candidates. One of these died during the year. The remaining 25 were graduated from the school June 22, 1892.

The beneficial effect of the work of this school is recognized. Good work was done during the year. Its quality improves as the material from which it takes its supply is improved, both in scholarship and maturity, with the increasing years and growth of the schools.

Herewith is submitted the report of the principal, to which your attention is invited.

#### NIGHT SCHOOLS.

The entire amount appropriated for night schools, white and colored, in the District of Columbia for the last year was \$5,600, of which \$600 were for contingent expenses. Of the \$5,000 appropriated for instruction \$2,323.50 were allotted to the seventh and eighth divisions. The same number of schools as in the preceding year was opened, but as the allowance for instruction was nearly \$400 less than in 1890-'91, the length of the term was reduced from 56 to 49 nights. These schools were opened October 19, 1891, and closed February 19, 1892. The shortness of the term, necessitated by the meagerness of the funds for their operation, was a source of much regret.

The whole number of pupils enrolled was 1,353; the average enrolled, 855.

The following table gives the entire enrollment, the average enrollment, the attendance, the number of teachers employed, and the cost for instruction:

School.	Whole enrollment.	Average enrollment.	Average nightly attendance.	Per cent- age of attend- ance.	Time.		Num- ber of teach- ers.	Cost per night.	Entire cost for teach- ing.
					Num- ber of nights.	Num- ber of hours.			
Stevens.....	235	168	148	87.7	48	96	4	8	\$384
Garnet.....	222	126	107	85.3	49	98	4	8	392
Wormley .....	146	74	57	76.6	48	96	4	8	384
John F. Cook.....	298	174	143	80.9	48	96	4	8	384
Lincoln.....	252	173	148	85.3	49	98	4	8	392
Randall.....	200	140	128	91.3	48	96	4	8	384
Total .....	1,353	855	731	.....	.....	.....	24	48	2,320



There is no feature of our educational work deserving of greater encouragement and more generous support. The social conditions of a very large part of this population force the withdrawal of very many children from the day schools, and many during the early stages of the course. Their education is practically terminated unless opportunity for further pursuit of study is afforded through some such provision as the night schools offer.

The number of teachers employed was 24. They were selected from the day-school corps, from normal graduates employed in the day schools as substitutes, and, in a few instances, from other teachers of more or less experience; and thus from the greater experience of the first and third classes and the special preparation of the second class these schools enjoyed excellent service.

Good degree of regularity in attendance, quiet, attention, and studious habits in the schoolroom, earnestness and eager desire to avail of the advantages which the schools afford, deferential bearing toward their instructors, and courteous treatment of one another, gave on the part of the pupils strong evidence of their appreciation of the provision. Increasing acquaintance with the work accomplished in these schools annually strengthens the conviction that no portion of the public money is expended which promises greater return to the community. What is most to be deplored is the too-restricted sphere for their action on account of the paucity of funds. There were only six schools, averaging an enrollment each of about 225 pupils, from an illiterate class numbering several thousands, of whom many are eager for free provision. These schools should be established in all parts of the city and in such numbers as to help counteract the temptations to which, in these hours of greater leisure, youth and the young adult population are constantly exposed. Their tendency is strongly in the direction of better morals and hence in the diminution of vice and crime.

I would earnestly recommend that no effort be spared to secure a larger appropriation for them that pressing needs may be met.

That a better idea may be obtained of the interest shown in these schools, of the work done and its results, I submit the reports of the principals to this office.

#### STEVENS NIGHT SCHOOL.

WASHINGTON, D. C., *February 17, 1892.*

DEAR SIR: I have the honor to submit the following as my report of the night school under my charge:

The term of 1891-'92 was one which seemed full of profit to those pupils who were fortunate enough to attend every session of the school during the season.

As you will see by examining the record, on the first evening 100 of the pupil who were in the school last year returned to be enrolled as pupils of the term which has just closed, and the majority of these pupils continued till the close of the year. I find that a great deal of the fluctuation in attendance is caused by young men and young women who come to school with the idea that the evening school does not



require of its pupils hard work, and as soon as that idea is exploded they drop out by twos and threes till nothing but the earnest student is left.

The work of the grades above the fifth was not as well done as I desired it to be, for the reason that all of those grades were thrown into one room and each class had but few pupils in it.

Believing that this condition confronts other schools similarly situated, I most respectfully recommend that there be established a school near the center of the city to which all pupils above the fifth grade be sent and that the work in the several buildings be confined to that of the first five grades.

And I would further recommend that the course of study for the last four grades of the grammar course be so constructed as to give the pupils a business education. A business education is more essential to success to-day than it has ever been before in the history of the world. The race of life has become intense. The weak are pushed aside and the strong win fame and fortune. Then, again, this capital is permanent; it is always available. The demand of the day is practical knowledge suited to everyday life.

The assistant teachers were very faithful in the discharge of their duties and deserve encouragement for the zeal displayed during the entire session.

Let me thank you and the committee for the cordial support which you have given to our school and teachers.

Very respectfully,

ELLIS W. BROWN,  
*Principal.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

#### WORMLEY NIGHT SCHOOL.

WASHINGTON, D. C., *February 17, 1892.*

DEAR SIR: In submitting my annual report for the Wormley Night School for the year 1891-'92, closing this date, permit me to state as my conclusions—

First. The attendance on the whole has not been so large as that of the previous year, but the interest and deportment of the pupils has been very much better.

Second. This diminished attendance is not attributable, as may be suggested by the above paragraph, to any less interest on the part of the pupils, but to the great difficulty which adults in domestic service experience in getting to school at all after completing their daily labor. I would not directly charge, but the inference is irresistible, that there is little, if any, moral encouragement given by many employers to their help who attend the night school in this section.

Third. It has been suggested that if another year the school were located in the Phillips building, which is nearer the center of the colored population of Georgetown, the attendance might be increased and the interest kept up throughout the session.

When the adults, who have reached nearly 50 years, continue to manifest a desire to read and write, and attend school through all sorts of weather to accomplish that purpose, the beneficial results and the policy of continuing such need be no longer questioned.

Very respectfully,

J. W. CROMWELL,  
*Principal.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

## GARNET NIGHT SCHOOL.

WASHINGTON, D. C., *February 19, 1892.*

DEAR SIR: The Garnet Night School opened on October 19, 1891, the whole number enrolled for the month being 160. The attendance, except during the month of January, was fairly good; the average number enrolled for the year was 126, the average number in attendance 107, and the percentage of attendance, 85.3.

The subjects taught were reading, spelling, arithmetic, geography, history, and penmanship.

The pupils appeared to be very much interested in their work, and showed a marked improvement at the close of the term. This was especially noticeable in pupils of the first grade.

The discipline has been, I think, excellent; the pupils were uniformly courteous to each other, as well as to the teachers.

Thanking you for the very able corps of assistants furnished,

I am, very respectfully,

M. E. GIBBS,  
*Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

## JOHN F. COOK NIGHT SCHOOL.

WASHINGTON, D. C., *February 17, 1892.*

DEAR SIR: I herewith submit the following report of John F. Cook Night School:

The school opened with an increase in attendance over last year, and by the third session we were forced to turn away or recommend to other schools more than fifty applicants. The use of classification sheets in the night schools is, I think, productive of much good, as promotions are made with the same regularity as characterizes our day schools.

As most of the pupils return the following session, the good effect of careful promotions can readily be seen, and, if continued, I have no doubt but that we may grade our night schools successfully. Owing to the crowded condition of our rooms, caused by the increase in attendance, much work planned by the teachers was omitted, though the essential points in the course were given special attention, and pupils were drilled thoroughly in them.

I wish also to speak of the good work done by my associate teachers, and heartily commend them to you as faithful and energetic workers.

To you, as well as to our esteemed trustee, Mr. L. A. Cornish, I would express my sincere thanks for favors and advice.

Very respectfully,

WILSON BRUCE EVANS,  
*Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

## LINCOLN NIGHT SCHOOL.

WASHINGTON, D. C., *February 19, 1892.*

DEAR SIR: In submitting my report of the Lincoln Night School, I would say that the pupils evinced the greatest desire for knowledge; therefore the instruction in the various subjects taught was eagerly grasped. The great and only source of regret expressed by me and all of the pupils has been that the time allotted them was too brief.

Making due allowance for the way in which the pupils are circumstanced, the degree of regularity of attendance was quite good. The whole number enrolled was 200, the average enrollment was 140, and the average attendance 128.

Their progress in all subjects pursued was good; but in number and reading their advancement was very noticeable.

Much praise is due to the very efficient and energetic corps of ladies who were my assistants. They were always punctual, faithful, and zealous, and in these ways contributed in no small degree to the successful results. Allow me also to thank Trustee Cornish, and yourself, particularly, for your hearty coöperation, encouragement, and kindly advice ever cheerfully given.

Very respectfully,

MARTHA E. TUCKER,  
*Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

#### RANDALL NIGHT SCHOOL.

WASHINGTON, D. C., February 17, 1892.

DEAR SIR: It is gratifying to me, and I know it will be to you, to know the growing popularity of the Randall Night School. That 66 of the last-year pupils were enrolled the first week is a strong argument that the people appreciate the advantages offered by the school authorities. The attendance during the year was good and the progress made by the pupils was satisfactory to teachers and pupils. Some of the pupils, who came to us three years ago with no knowledge whatever of reading and writing, can now read well in the Fourth Reader, and can write a fair letter.

The work in number was good throughout the school. We sought to secure both comprehension and rapidity. In the first grade nearly all were without knowledge of number and could not make the figures at the beginning of the school, but at its close they could work in the first three rules of number. The eagerness and anxiety to acquire some knowledge are constantly manifest and encourage us to faithful work.

The opening of the night schools in October was a decided advantage in securing better attendance and continued interest. The ladies associated with me did excellent work and were interested in and devoted to their pupils and solicitous for the progress of the school.

Very respectfully,

JAMES STORUM,  
*Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

#### TEACHERS.

The whole number of teachers employed in the schools during the school year was 244. Of this number 222 were regular, or in direct charge of schools, and 22 in charge of special departments or subjects. The corps differed but very slightly from that of the preceding year. The difference consisted in the appointments to new teacherships and to vacancies caused by death and resignation.

The employment of trained service gains with each year. Of the whole number of teachers employed during the year, 162, or 66.4 per



cent, are graduates of normal schools; and of these normal graduates, 155 have been trained in the normal school of these divisions.

The continued employment of efficient and faithful teachers is not without great advantage to the schools, for, other things being equal, change of teachers must, in the adjustment of the new force to new surroundings, result in the loss of much time valuable to both teacher and pupils. Not only in the skill obtained from large and successful experience, but in the added fitness for work, from special training, there is offered much opportunity for good results.

For the faithfulness and intelligent effort with which the teachers generally have discharged the duties of their position too much credit can not be given.

#### JANITORS.

In my last report I referred somewhat at length to this considerable body in the service of the schools, speaking of their character, of their close relation to an important educational work of the schools through the proper discharge of the duties imposed upon them, and calling attention more particularly to the small compensation for services performed. Another year of opportunity for observation and thought upon this subject strengthens the conviction of the views then expressed; therefore, I would earnestly renew the recommendation therein made.

#### STATISTICS.

In the collation of statistics from time to time during the year, and their summarizing, much care is bestowed. Too much care can not be exercised, since if not reliable they are valueless; and, further, since through their agency very much of educational work will be transmitted to the future. They do not indicate perfection, nor is such claimed for them. They do, however, show in connection and comparison with those of previous years that the schools have made and are making substantial progress.

#### MANUAL TRAINING.

This department of instruction was maintained in excellent condition. Interest was easily sustained during the year. The progress made was very commendable.

By the extension of the Miller building three large and well-lighted rooms were added. The one on the first floor was used by the metal shop for the forge room; the one on the second floor was used by the shop in wood; and the one on the third floor was used as a kitchen.

In the extension in this building of wood-shop and kitchen facilities, twice the number of pupils were permitted to be under instruction at the same time. In the less interruption of the work of the regular

teacher than through the former division of her classes, to enable them to receive this special instruction, the advantage of this provision for larger numbers at one time is considerable. If such provision could be made general, where shops and kitchens are located, much of what now seems good cause for complaint would be removed.

There was no increase in the number of shops. Additions were made to their equipment, though not to the extent that could be desired. The metal shop, from the want of means, is quite incomplete in its equipment. The greater cost of the tools and machines used in the instruction does not in the limited amount received for manual training permit annually much outlay upon it.

The number of pupils who received training in the shops was 646, of whom 88 were in the metal shop. The increase in the enrollment over that of the previous year was 40. In the metal shop the pupils were received from the high school and schools of eighth grade; in the wood shops they were received principally from the same schools and those of the seventh grade.

In some instances pupils of lower grade were permitted to enter the wood shops.

An exhibition of the year's work, both in wood and metal, was held June 17 and 18, each day from 9 a. m. to 7 p. m., at the Miller building. There were not only many exhibits, but in such variety and improvement in workmanship over previous exhibitions as to reflect great credit upon the teachers. The opportunity to see the work of the schools in this department was availed of by hundreds of parents and citizens of all classes.

The report of the director of manual training to this office is herewith submitted.

#### COOKING.

There was no increase in the number of schools of cookery. The school that was located at the Miner building was transferred to the Miller, which was permitted by the extension of the latter building. The occupancy of the new high school building made this transfer necessary to afford facilities to the girls of that school under instruction in cookery.

The enrollment in these schools was restricted wholly to the girls of the seventh and eighth grades and the high school. The number receiving instruction was 606, or 39 more than in the preceding year. The work done in these schools is of very creditable character. The public was afforded an opportunity during the exhibition, June 17 and 18, at the Miller building, to see the two cooking schools located there in operation. The importance of their work was seen and appreciated.

The amount of money expended for the material in their maintenance during the year was \$338.63.

Fuller details are set forth in the report of the directress, herewith submitted.



## SEWING.

In no branch of industrial instruction have results been more satisfactory than in this. An additional teacher was appointed at the beginning of the school year, making in all six teachers in this department; yet this number is severely taxed to meet the requirements. Such may be readily seen from the scope of this instruction. Sewing covers four grades of schools, beginning with the third and ending with the sixth. In these grades there were 3,025 girls, all of whom received the instruction. In addition, there are two shops, one in the eighth division A, and one in the seventh division, in which cutting, fitting, and dressmaking are taught. These shops, from the nature of the work done in them, draw well upon the limited teaching force. In this branch of the work instruction was given to 426 girls, who were selected from the sixth-grade schools. In the selection, size and age were preferred. I would here repeat the opinion expressed in my last report, that the work in these shops is much better adapted to girls of seventh or eighth grade, on account of their greater training and maturity; also that better results would follow and more be accomplished were the work in the shops made to extend over a period of two years by reducing, if necessary, the time now given to cooking from three years to two years.

It is to be regretted that from the want of means a shop can not be located in eighth division B, where one is so much needed to afford reasonable accessibility to girls attending the schools in that division.

Herewith is submitted the report of the directress of this branch, which gives with good degree of detail the operations of the year.

## A RETROSPECT.

In 1874-'75, the centennial year of the nation's existence, a brief historical sketch of schools, past and present, for colored children in the cities of Washington and Georgetown, was made a part of the annual report for that year. Since it was published nearly a score of years has elapsed. Believing that the information it contains is known to comparatively few, I have thought it well to continue briefly the sketch to the present, the quadri-centennial year of the discovery of America, and to make it a part of this annual report.

Contrary to prevalent opinion, the instruction of colored children in these cities began at least a half century prior to the rebellion. In 1807, a short time subsequent to the erection of the first two schoolhouses for the public instruction of white children, George Bell, Nicholas Franklin, and Moses Liverpool, three unlettered colored men, born and reared as slaves and who had just emerged from slavery, erected the first schoolhouse for colored children. It was located in the southeastern part of Washington, near the site on which the Providence Hospital now stands. In it they opened a school which flourished for several years under a Mr. Lowe, a white teacher.



In that year the census of Washington showed a white population of 4,148 and a free colored of 494 persons. It was, as is well known, a criminal offense to instruct slaves. Besides the two public schools for whites there were at that time for the same class several small private schools.

These facts permit one or two quite interesting inferences:

First. That at that time educational enterprise of colored men secured, in point of accommodation, school provision for the free colored children of Washington nearly, if not quite, equal to that of the white.

Second. That, in proportion to the population, the public colored-school provision of to-day does not embrace one child more than did that which was created by the energies of three illiterate representatives of the race more than four-fifths of a century ago.

The first colored school in Georgetown was opened about 1810 by Mrs. Mary Billings, a well-educated English woman, in a brick house on Dumbarton street, between Congress and High streets. These early schools, which prepared for the teacher's position many of the colored teachers that have almost wholly occupied the field since 1820, were generally taught by English teachers. A noteworthy exception in the period, however, was Mrs. Anne M. Hall, from Prince George County, Md., who was the first colored teacher in this District. She started a school in the immediate vicinity of the Old Capitol, and taught there and in other localities of the city with uniform success about twenty-five years.

Because of the leadership of Mr. Bell in the earliest educational enterprise among colored men in this community, the first school-house was named the Bell school-house.

His merits to such honor constantly increased during his active life in his conspicuousness in all efforts for the benefit of his race in this District.

In 1818, under the auspices of an association of free colored persons, known as the "Resolute Beneficial Society," the Bell school-house, which had been used several years as a dwelling, was again taken for school purposes. With Mr. Pierpoint, of Massachusetts, a relative of the poet, as teacher, a school, free to those not able to pay for instruction, was organized in it. After two or three years' successful teaching he was succeeded by John Adams, the first colored man who taught in this District.

No house built in this community expressly for the instruction of colored children has a history more varied and replete with interest than that so well known as the Smothers school-house.

It was built about 1822 by Henry Smothers, a colored man, on H street north, near Fourteenth west. After having been used almost constantly for forty years by colored schools, it was destroyed by incendiaries in 1862. Mr. Smothers brought to it, as soon as it was finished, a large school which he had started and taught in another

locality. He was succeeded in 1825 by John W. Prout, a colored man of much ability. Under Mr. Prout the school was governed by a board of trustees and organized as a free school.

The number of scholars averaged about 150, but, for want of voluntary pecuniary support, after an existence of two or three years, it became a regular pay school.

In 1834, about eight years subsequent to the purchase of his freedom, John F. Cook, a nephew of George Bell, succeeded to this school and continued it, with one year's intermission, till his death in 1855. The interruption was in the "Snow riot," which occurred in September, 1835. During this riot nearly all of the colored schoolhouses were partially demolished, and some completely ruined. The books and furniture were also destroyed. Mr. Cook, being especially sought for by the rioters, was compelled to flee precipitately from the city. He returned in August, 1836, and immediately reopened his school. After his death this school was continued by his sons until 1867—thus giving to it, in the several successions, an almost uninterrupted existence of about a half century.

Though at no time free from those ebullitions of hatred toward his race, which were frequently produced by the imaginary fears of a slaveholding community, no period was darker to the colored man of this District than that limited by the years 1831 and 1836. The bitter feeling which culminated in this community in the "Snow riot" was but an offshoot from that more bitter caused by the Nat Turner insurrection, which was then, with great violence, sweeping away all the encouragement formerly given by the more friendly white to the colored man in his persistent efforts at elevation. The darkness that had gathered about him presented, however, an opportunity for the exhibition of a character which, under ordinary circumstances, might never have been seen. The withdrawal of the friendly mite, which had been occasionally given, and the friendly word, aroused a spirit of determination, self-reliance, and irrepressible energy that instantly foreshadowed eventual success. In this period a larger number of schools, and those marked for stability, were started than at any other period of same length prior to the war.

Of that number two are deserving, in point of stability as well as success, of particular mention: Benjamin McCoy's, organized in 1833, and taught by him for sixteen years; Enoch Ambush's, started in the same year, and taught by him until 1865, almost one-third of a century. It was in this period that the large and efficient Colored Sunday School Union had its birth. Not even the church could rise above the bitter feelings of the time, and hence the doors which had been formerly thrown open to the colored child to receive religious instruction in common with the white were barred against him.

The earnestness of the colored people of this District in their efforts to secure for themselves and posterity the benefits of education is well



set forth in the number of schools which the first half century of their school period embraces. Besides those already named there were many others of prominence, more or less, among which were those organized, and taught for respectable periods of time, by the following-named persons: Henry Potter, Mr. Shay, Mrs. Mary Wall, Mrs. George Ford, Mr. Nuthall, Mr. Tabbs, Myrtilla Miner, Mr. Fletcher, Mrs. Louisa P. Costin, Martha Costin, Maria Beecraft, Mary Wormley, Nancy Grant, Dr. James H. Fleet, John T. Johnson, Charles H. Middleton, Margaret Thompson, Alexander Hays, Mrs. Charlotte Gordon, Elizabeth Smith, Joseph T. Mason, Rev. James Shorter, Arabella Jones, Eliza A. Cook, Alexander Cornish, Richard Stokes, Thomas H. Mason, Mrs. Eliza J. Brooks, Rev. Chauncy Leonard, Rev. Benjamin Tanner, Annie E. Washington, Matilda Jones, Rev. William H. Hunter, Charlotte Beams, Margaret Hill, Isabella Briscoe. The first eight named were white teachers and the rest colored.

There were also several parochial schools. In the instruction of colored children during that period no church stood as prominent as the Catholic. Hon. Henry Barnard, Commissioner of Education (from whose collection of facts I have drawn largely in this statement), in his report, May 30, 1868, to the United States Senate, respecting the condition and improvement of public schools in the District of Columbia, says of these early schools:

It is worthy of observation that in no case has a colored school ever failed for the want of scholars. The parents were always glad to send their children, and the children were always ready to go, even when too poor to be decently fed or clothed. When a school failed it was for want of money, and not for want of appreciation of the benefits of education. The same remarkable avidity for learning was then apparent as is now so manifest among the whole body of the colored population of this District.

The facts stated in this narrative fully substantiate the following propositions:

First. The impression which prevails very generally that the colored people of this District before the war had no schools is unfounded and exceedingly unjust to them.

Second. Public sentiment in the earlier years of the District was not only tolerant of education among the colored people, but positively in favor of it, and it was a common thing for colored and white children to associate together in the same school.

Third. The attendance of colored children at school was as large before the war as it is now, in proportion to the free colored population of the District at the respective periods.

Fourth. The colored people of the District have shown themselves capable to a wonderful degree of supporting and educating themselves, while at the same time contributing by taxation to the support of white schools, from which they were debarred, and that, too, when in numerous cases they had previously bought themselves and families from slavery at very great expense; their history furnishing an example of courage and success in the midst of trial and oppression scarcely equaled in the annals of mankind.

At the approach of the rebellion the private colored schools of Washington and Georgetown embraced at least 1,200 children.

The abolition of slavery in the District of Columbia and other exigencies of the war trebled the free colored population of this community.



The great destitution which the past had imposed upon two-thirds of this population, and the large absence of facilities, in the very unsettled state of business at that time, for procuring means of support attracted to them not only attention, but relief from the humane of the North. It was at that time that the free school for colored children gained the supremacy which it has since maintained.

The first of this period in Washington was organized under the auspices of the American Tract Society to embrace a number of persons held as captured material of war. It was located in the buildings north of the Capitol grounds known as Duff Green's Row. The second was opened one month later in the basement of the Union A. M. E. Church, now Metropolitan, on M street north, near Sixteenth west, first as a night, but several months later as a day school.

Under the management of and by the Freedmen's Relief Association of the District of Columbia five schools more were opened in the autumn of 1863 and the earlier months of 1864.

In response to urgent appeals to the generosity of the North aid was given about this time, and afterwards through the medium of the following-named associations, as well as through some minor ones and individuals:

Pennsylvania Freedmen's Relief, National Freedmen's Relief, New York; African Civilization, Reformed Presbyterian, Old School Presbyterian, American Missionary, New England Freedmen's Aid, New England Friends, Philadelphia Friends, Free Baptist Mission, Baptist Home Missionary, Bangor Freedmen's Relief.

From such aid there were, in the spring of 1864, 11 schools, with 21 teachers and 1,000 pupils; in the school year 1864-'65, 27 schools, with 61 teachers and 3,588 pupils; in 1865-'66, 40 schools, with 72 teachers and 3,930 pupils; in 1866-'67, 55 schools, with 75 teachers and 3,427 pupils; in 1867-'68, 21 schools, with 21 teachers and 1,200 pupils.

After 1867-'68 all of the associations and individuals withdrew their aid, except the Association of the New England Friends, which continued it until the close of the school year 1871-'72.

In the first year of this benevolent work, there were many causes tending to retard the progress of the schools. The accommodations were poor, since the best rooms available were the basements of the colored churches, and they, generally, were dark, damp, without means for proper ventilation, and otherwise ill adapted to school purposes. In the closing stages of the war, however, slight relief from this lack of convenience and comfort was found in the occupancy of temporary frame barracks. In many instances the absence of facilities, from the want of proper school furniture, apparatus, and uniformity of textbooks, was aggravated by the inexperience of teachers. The schools supported by the several associations were distinct and exclusive. Rivalry, often ungenerous, among so many independent and conflicting

organizations, was naturally prolific of drawbacks. In the latter part of 1865, however, upon the recommendation and by the assistance of the United States Commissioner of Education, this want of coöperation was removed, and the schools were thus permitted to enter upon a more promising career.

In addition to the day there were free evening schools, located in various sections of the city. Some of the teachers in them received slight compensation for their services; others refused it. They did an excellent work among the adult population, and those of the minor, whose employment prevented day attendance.

The amount expended for the support of these schools, day and evening, during the period of their existence, was not less than \$150,000—a free-will offering from the friends of humanity; the expenditure of life's forces by the missionary teacher admits of no estimate.

On the 21st of May, 1862, Congress passed an act requiring that 10 per cent of taxes collected from persons of color in Washington and Georgetown should be set apart for the purpose of initiating a system of primary schools for the education of colored children residing in these cities. The administration of the trust was given to the board of trustees of public schools. In July of the same year it was transferred by Congress to a special board denominated the "Board of trustees of colored schools for Washington and Georgetown." The inadequacy of provision given by the act did not permit the opening of a single school under it until 1864. In that year a teacher was employed at a salary of \$400 per annum. In the two years next following that of the passage of the act less than \$800 were received from the municipal authorities.

By another act of Congress in June, 1864, which provided that such a proportion of all school funds raised in Washington and Georgetown should be set apart for colored schools as the number of colored children between the ages of 6 and 17 bears to the whole number of children in said cities, greater provision was made. The construction placed upon this act by the municipal authorities was, however, adverse to the immediate availment of funds by the board, and required the interposition of Congress in further legislation.

Prior to 1864 no school could be opened on account of the insufficiency of funds, and for the same reason but one from that time until 1866. In 1866-'67 there were 5 schools with 7 teachers and 450 pupils. From 1867-'68, the year in which the last act of Congress became fully operative, to 1891-'92, inclusive, the number of schools and teachers, and the whole number of pupils enrolled for the respective years stand as follows:



Years.	Number of schools.	Number of teachers.	Number of pupils.	Years.	Number of schools.	Number of teachers.	Number of pupils.
1867-'68 .....	41	41	2,300	1880-'81 .....	121	134	8,164
1868-'69 .....	52	52	3,000	1881-'82 .....	130	143	8,303
1869-'70 .....	66	63	3,650	1882-'83 .....	135	147	8,735
1870-'71 .....	68	66	4,986	1883-'84 .....	140	154	9,181
1871-'72 .....	75	78	4,661	1884-'85 .....	149	162	9,614
1872-'73 .....	76	86	5,188	1885-'86 .....	161	174	10,158
1873-'74 .....	74	87	5,280	1886-'87 .....	*168	182	10,365
1874-'75 .....	75	89	5,489	1887-'88 .....	*176	†191	11,040
1875-'76 .....	76	90	5,454	1888-'89 .....	*186	†202	11,170
1876-'77 .....	79	92	5,954	1889-'90 .....	*197	†216	11,438
1877-'78 .....	96	109	6,515	1890-'91 .....	*214	†230	12,132
1878-'79 .....	108	119	7,731	1891-'92 .....	*224	†244	12,280
1879-'80 .....	117	130	8,080				

\* Including manual training schools.

† Including normal school principal and teachers.

It is seen that there have been schools in the district for the instruction of colored children during the last eighty-five years. This time covers two distinct general periods, the pay and free school period. The former embraces more than a half century. Though its main work in this community has been finished, and in part recorded, its spirit still largely controls the present. The courage and success evinced by the colored population during this period, in its great and persistent struggles with poverty and oppression, in securing for itself and posterity the benefits of education, fully tested the capabilities of the race both to acquire and to control. The latter period, which began in 1862, is current, and, as has been shown in the comparisons, writes progress upon each succeeding year.

Very respectfully,

G. F. T. COOK,  
Superintendent of Public Schools.

## STATISTICS.

TABLE I.—Showing the number of half-day schools of each grade in the seventh and eighth divisions, and the buildings in which they are located.

Schools.	First grade.	Second grade.	Third grade.	Total.	Schools.	First grade.	Second grade.	Third grade.	Total.
Magruder .....	3	3	....	6	Miller .....	1	1	....	2
Miner .....	1	1	....	2	Jones .....	4	1	....	5
Stevens .....	5	3	....	8	Slater .....	3	2	....	5
Briggs .....	2	2	....	4	Lovejoy .....	4	1	1	6
Wormley .....	2	2	....	4	Lincoln .....	4	2	2	8
Phillips .....	1	1	....	2	Giddings .....	11	3	2	8
Garrison .....	3	2	....	5	Randall .....	4	2	....	6
Garnet .....	4	2	2	8	Anthony Bowen .....	2	2	....	4
John F. Cook .....	2	11	....	4	Bell .....	3	3	....	6
917 P street NW .....	1	1	....	2	Ambush .....	2	2	....	4
Banneker .....	2	2	....	4	Total .....	56	40	7	103



TABLE II.—Showing the number of schools of each grade in the seventh and eighth divisions, two of which occupy one room.

	First grade.	Second grade.	Third grade.	Total.
Seventh division.....	12	12	.....	24
Eighth division (A).....	18	11	3	32
Eighth division (B).....	14	10	4	28
Total .....	44	33	7	84

TABLE III.—Showing the number of school buildings and schoolrooms occupied (owned and rented) in the seventh and eighth divisions for the last ten years.

Years.	Buildings.			Rooms.			Years.	Buildings.			Rooms.		
	Owned.	Rented.	Total.	Owned.	Rented.	Total.		Owned.	Rented.	Total.	Owned.	Rented.	Total.
1882-'83 .....	9	3	12	87	19	106	1887-'88 .....	13	9	22	129	28	157
1883-'84 .....	10	2	12	95	15	110	1888-'89 .....	13	8	21	129	27	156
1884-'85 .....	10	2	12	95	15	110	1889-'90 .....	18	4	22	156	21	177
1885-'86 .....	12	4	*16	114	17	131	1890-'91 .....	18	4	23	166	22	190
1886-'87 .....	11	4	15	112	17	129	1891-'92 .....	21	3	24	†186	‡21	207

\* Building owned by first six divisions given up at end of the school year.

† Chamberlain building (using two rooms) closed; six rooms used for industrial purposes and one for normal school.

‡ Eleven rooms for high school and seven rooms for industrial purposes.

Number of grammar and primary schools, 211.

TABLE IV.—Showing whole grade enrollment of pupils by sexes in the seventh and eighth divisions for the school year ending June 30, 1892.

Grade.	Whole enrollment.			
	Boys.	Girls.	Total.	Per cent.
Normal school .....	1	26	27	.22
High school.....	104	303	407	3.31
Eighth grade.....	179	235	414	3.37
Seventh grade .....	295	388	683	5.56
Sixth grade.....	324	426	750	6.11
Fifth grade.....	467	613	1,080	8.80
Fourth grade .....	652	858	1,510	12.30
Third grade .....	859	1,128	1,987	16.17
Second grade .....	934	1,228	2,162	17.61
First grade.....	1,408	1,852	3,260	26.55
Total .....	5,223	7,057	12,280	100.00
SUMMARY.				
Normal and high schools .....	105	529	634	3.58
Grammar schools .....	1,265	1,662	2,927	23.84
Primary schools.....	3,853	5,066	8,919	72.63
Total .....	5,223	7,057	12,280	100.00

TABLE V.—Showing the whole number of pupils enrolled in the seventh and eighth divisions in each grade, and per cent of enrollment for the school year 1890-'91 and 1891-'92, with increase and decrease.

Grade.	1891-'92.		1890-'91.		Increase.	Decrease.
	Whole enrollment.	Per cent.	Whole enrollment.	Per cent.		
Normal school.....	27	.22	20	.21	1	.....
High school.....	407	3.31	376	3.10	31	.....
Eighth grade.....	414	3.37	401	3.31	13	.....
Seventh grade.....	683	5.56	602	4.96	81	.....
Sixth grade.....	750	6.11	721	5.94	29	.....
Fifth grade.....	1,080	8.80	1,169	9.64	.....	89
Fourth grade.....	1,510	12.30	1,391	11.47	119	.....
Third grade.....	1,987	16.17	1,957	16.13	30	.....
Second grade.....	2,162	17.61	2,404	19.81	.....	242
First grade.....	3,260	26.55	3,085	25.43	175	.....
Total.....	12,280	100.00	12,132	100.00	479	331
SUMMARY.						
Normal and high schools.....	434	3.53	402	3.31	32	.....
Grammar schools.....	2,927	23.84	2,893	23.85	123	89
Primary schools.....	8,919	72.63	8,837	72.84	324	242
Total.....	12,280	100.00	12,132	100.00	479	331

TABLE VI.—Showing the number of schools of each grade below the high school in the seventh and eighth divisions.

Division.	First grade.	Second grade.	Third grade.	Fourth grade.	Fifth grade.	Sixth grade.	Seventh grade.	Eighth grade.	Total.
Seventh.....	17	14	12	10	7	6	5	3	74
Eighth (A).....	21	12	12	8	7	4	3	3	70
Eighth (B).....	18	14	12	8	6	4	3	2	67
Total.....	56	40	36	26	20	14	11	8	211

TABLE VII.—Showing the absolute and relative growth of the high school of the seventh and eighth divisions for the last ten years.

Year.	Number enrolled in all grades, excluding normal school.	Number enrolled in the high school.	Per cent of enrollment in high school on enrollment in all grades, excluding normal school.	Teachers in all grades, excluding normal-school teachers.	Teachers in high school.	Per cent of teachers in high school on number of teachers in all grades, excluding those in normal school.	Number of graduates from high school.
1882-'83.....	8,710	114	1.3	147	3	2	(*)
1883-'84.....	9,167	127	1.4	154	4	2.6	13
1884-'85.....	9,598	172	1.8	162	4	2.5	28
1885-'86.....	10,138	247	2.4	174	6	3.4	33
1886-'87.....	10,345	276	2.7	182	8	4.4	30
1887-'88.....	11,000	361	3.3	188	9	4.8	51
1888-'89.....	11,130	416	3.7	197	11	5.5	67
1889-'90.....	11,398	345	3	211	12	5.6	41
1890-'91.....	12,106	376	3.1	226	14	6.1	86
1891-'92.....	12,253	407	3.3	240	17	7	69

\* No graduating class.

TABLE VIII.—Showing the whole enrollment, by sexes, in the high school of the seventh and eighth divisions for the last ten years.

Year.	Whole number of pupils enrolled.			Percent of pupils enrolled.	
	Boys.	Girls.	Total.	Boys.	Girls.
1882-'83 .....	9	105	114	7.9	92.1
1883-'84 .....	17	110	127	13.4	86.6
1884-'85 .....	22	150	172	12.8	87.2
1885-'86 .....	37	210	247	14.9	85.1
1886-'87 .....	51	225	276	18.5	81.5
1887-'88 .....	73	288	361	20.2	79.8
1888-'89 .....	81	335	416	19.5	80.5
1889-'90 .....	64	281	345	18.6	81.4
1890-'91 .....	82	294	376	21.8	78.2
1891-'92 .....	104	303	407	25.6	74.4

List of school-houses owned, with their respective locations and the number of rooms in each.

Di- vis- ion.	Name of building.	Location of building.	Num- ber of rooms.
....	High school.....	M street, between First street and New Jersey avenue NW	.....
7	Sumner .....	Seventeenth and M streets NW .....	10
7	Stevens .....	Twenty-first street, between K and L streets NW .....	16
7	Magruder.....	M street, between Sixteenth and Seventeenth streets NW..	8
7	Wormley .....	Prospect street, between Thirty-third and Thirty fourth streets NW.	8
7	Chamberlain*.....	East street, Georgetown.....	8
7	Briggs .....	Twenty-second and E streets NW.....	8
7	Garrison.....	Twelfth street between R and S streets NW.....	8
7	Phillips.....	N street, between Twenty-seventh and Twenty-eighth streets NW.	8
8a	Garnet.....	U street, between Vermont avenue and Tenth street NW...	12
8a	John F. Cook .....	O street, between Fourth and Fifth streets NW.....	11
8a	Banneker .....	Third street, between K and L streets NW.....	8
8a	Jones .....	First and L streets NW .....	8
8a	Lovejoy.....	Twelfth and D streets NE .....	6
8a	Slater.....	P street between North Capitol and First streets NW.....	8
8a	Logan .....	Third and G streets NE .....	8
8b	Lincoln .....	Second and C streets SE .....	11
8b	Randall .....	First and I streets SW .....	12
8b	Giddings .....	G street, between Third and Fourth streets, SE.....	8
8b	Anthony Bowen.....	Ninth and E streets SW.....	8
8b	Bell.....	First street, between B and C streets, SW.....	6
8b	Ambush .....	L street, between Sixth and Seventh streets, SW.....	9

\* Wholly unfit for use.



## SEVENTH DIVISION.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I submit herewith a report of the schools under my supervision for the year ending June 30, 1892:

Number of schools at the beginning of the year,* 72:		Second grade.....	14
First grade.....	16	Third grade.....	12
Second grade.....	15	Fourth grade.....	10
Third grade.....	11	Fifth grade.....	7
Fourth grade.....	9	Sixth grade.....	7
Fifth grade.....	8	Seventh grade.....	4
Sixth grade.....	6	Eighth grade.....	3
Seventh grade.....	4	Whole number of pupils enrolled.	4, 165
Eighth grade.....	3	Average number of pupils enrolled.....	3, 364
Number of schools at the close of the year,* 74:		Average number in daily attendance.....	3, 177
First grade.....	17	Percentage of attendance.....	94.4

The discipline for the year has been excellent. The pupils seem to appreciate the efforts of the teachers to train them to habits of self-control and self-respect.

A strong effort was made to increase the efficiency of the schools by holding frequent meetings in which specimen lessons were given for the purpose of illustrating to the teachers the methods of doing the work required of them.

The work of those meetings was followed by personal visits from the supervising principal, who endeavored to encourage and assist the teachers by his presence and advice.

I can not commend too highly the teachers for the zeal and intelligence which they manifested in the doing of the work.

## BUILDINGS.

I wish to call your especial attention to the dingy and, in many respects, the dilapidated condition of the Sumner.

Much of the glass which was broken from the exterior doors during severe storm of 1891 has been replaced by rough and unsightly boards, which render the halls dark and, to some extent, dangerous when the doors are closed. Many of the windows need new cords, the woodwork paint, and the walls kalsomine. Most of the furniture is old and needs repairing.

During the extreme cold weather the building can not be properly heated. Numerous and bitter complaints were made by parents last winter relative to the insufficiency of heat.

The old rooms of the Stevens are unfit for school purposes.

The Phillips has never been satisfactory. There are leaks which render certain of its walls damp constantly. This is a new building,

---

\* Including five normal training schools.

yet the plastering has fallen from the walls in several places. The locks in many of the buildings are out of order, and for this reason afford no protection to the valuable property in the rooms.

The buildings in this division have not, for a number of years, received their share of the repairs.

The Garrison is still without a yard, notwithstanding Congress made an appropriation for that purpose more than a year ago.

In conclusion I would thank Hon. B. K. Bruce, local committee, and yourself for the courtesy accorded me during the year.

Very respectfully,

H. P. MONTGOMERY,  
*Supervising Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

---

#### EIGHTH DIVISION (A.)

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: The following report of the schools of the eighth division (A) is respectfully submitted:

#### BUILDINGS.

The buildings included six regular school buildings and two rented. The Lovejoy is sadly in need of repairs; the windows rattle so that it is impossible to teach with comfort or success.

Attention was pointedly called to this state of affairs last year, but nothing was done. The water-closets in the Banneker are the worst in the city, unworthy the civilization under which we live. Again I enter my protest against the occupancy of the basement rooms at the Cook. The dingy, rough, and uninviting school-room walls in the majority of the buildings call for action on the part of the authorities. The janitors generally have discharged their duty faithfully. The demands of their positions call for ampler remuneration.

#### ATTENDANCE AND DISCIPLINE.

The full and complete statistics of the schools are set out in the annual report filed in your office by me at the close of the year. The cases of tardiness reached 1,147, corporal punishment 27, and suspensions 37. There were three dismissals during the term, of which two were for violating the rule relative to firearms.

Palliating circumstances existed in these two cases, but the mandatory nature of the law forbade their consideration. Corporal punishment is the last resort, only used to prevent the expulsion of a pupil from the school into the streets, where he must deteriorate morally and

eventually swell the annals of crime. Time only emphasizes the need of a school or schools where pupils demanding severe and unusual modes of discipline may be properly handled.

Among the teachers are some who by constitution and training are especially fitted for this work. Such teachers properly selected and paid would increase the efficiency of the system.

#### STUDIES AND PROGRESS.

Details here are needless. Suffice it to say that the work has been well done. By means of grade meetings held by the supervisor throughout all the grades twice during the year, better and more uniform results were achieved. The increased amount of reading matter has been of much value to the lower grades. Clear, comprehensive outlines enabled the learner to group his knowledge, to have it well ordered, and, above all, to be ready at call. In the study of literature clear, crisp, and comprehensive outlines should be given—the skeleton as it were, to be clothed by study and reading.

#### EXAMINATIONS.

Written examinations covering all the subjects in the grammar grades were given by the supervising principal during the months of May and June. The results in most cases were highly encouraging. These examinations were intended as tests and suggestions.

#### TEACHERS.

To that body of earnest teachers who have labored with me is due the full measure of praise for good accomplished.

Misses L. E. Malvan and A. E. Holmes have died. The former was comparatively young in the work, but earnest, conscientious, and of sterling character; the latter was for many years identified with the schools and has left a name loved and honored by all who knew her.

I thank you and the trustees for the courtesy shown in the discharge of my duty.

Very respectfully,

W. S. MONTGOMERY,  
*Supervising Principal.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

---

#### EIGHTH DIVISION (B).

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit my report of the schools of this division for the year ending June 30, 1892.



## TEACHERS.

In this division 65 teachers taught sixty-nine schools, a condition resulting from overcrowded rooms, which made it necessary for several teachers to teach two schools each.

Toward the close of the year four of these schools were united and the work made easier for the teachers in charge. It is to be hoped, if such conditions exist next year as will render it necessary to assign one teacher to two schools, that the teachers selected will be chosen from the older members of the corps and not from among the newly-appointed normal graduates. I believe that, as a rule, those teachers who have had the experience of two or three years of actual school-room work, are preëminently better fitted for this kind of duty than those who have yet to apply practically the theories that constituted mainly their training for work as teachers.

It gives me great pleasure to report that the schoolroom work has been most satisfactory during the entire year. There have been shown a zeal and enthusiasm that far exceeded my expectations. On all sides the teachers have heartily coöperated with me in my efforts to secure for our schools the very highest possible standard of excellence. I can not too highly commend the corps to you and the local trustee.

## GRADE MEETINGS.

I have held a great many grade meetings during the year, which have aroused much enthusiasm, and, I believe, secured far more efficient work. At the beginning of the year the teachers met by grades, at which the work of the grade was fully explained and outlined. At the regular monthly meetings of the teachers specimens of the work of the month were shown and compared, all seeming to vie with each other in securing the very best possible results. Special meetings for special purposes were frequently held. I observed, in visiting after grade meetings, that the teachers took up suggestions readily and endeavored to improve their methods and their schools. Grade meetings have proved most valuable in giving to all the benefits of suggestions, criticisms, and observations, thereby awakening interest and stimulating the teachers to greater effort.

## COURSE OF STUDY.

I have sought to encourage our teachers in cultivating a broad and intelligent individuality, which will lead them to depend more upon themselves in discerning the needs and capacities of their pupils, and which will, at the same time, enable them to apply successfully their own resources to the welfare of those whom they teach. Knowledge can not be imparted by measure, nor can it be acquired by measure. I find too often that the idea of many teachers is to cover a certain amount of work in a certain time, forgetting that the paramount object is to cul-

tivate the child's strength, to develop a creature that can see and tell what he sees, and to make of him a discriminating, reasoning being. These ideas can not be too persistently held up before the teachers, and I have tried to discharge my duty in this respect.

#### LANGUAGE.

We have given to no subject so much time and attention as language. The very excellent talks on this subject, made by Supt. Powell to our teachers, proved of the greatest service in teaching this branch of study. A great many compositions have been written. We have aimed to write not long essays, but short, concise, correct compositions. We have taught the children to see and comprehend a subject in its entirety; to separate it into its parts; to describe, narrate, compare, and contrast in short, correct sentences. The expansion and contraction of their sentences, the use of equivalent expressions, and the uses of the many and varied idioms of the language have been constantly kept before the pupils. As the result of this teaching I observed in many schools a most gratifying improvement in their written and spoken language. The children become interested in proportion as the teacher is earnest, enthusiastic, and intelligent in the work, and the task becomes easier.

#### READING.

The Normal Readers are most excellent and have been well received by our teachers. The arrangement and selections are admirably adapted to supply the very best reading material for our schools, but the lack of familiarity with the author's plan for using the series embarrassed our teaching somewhat at first, and the character of the work in reading has not on the whole been satisfactory on this account.

#### WRITING.

There has been a very decided improvement in our writing during the year. Correct position of pupils, pen, and paper has been the first aim, and constant and persistent effort in this has made the writing good.

#### GEOGRAPHY.

Technical geography with the location and description of many cities, rivers, mountains, etc., has not been the aim, but we have sought to develop a knowledge of the people of the earth, their habits and customs, their governments, industries, and products.

As far as possible this subject has been developed by using specimens of products and dress, by pictures of cities, buildings, and persons, by product charts and maps. Ideas of land forms and bodies of water have been taught by actual observation, the teachers taking their schools to the country. The result has been keener interest and better knowledge.



## PHYSICS.

There are few subjects of greater importance or that should receive more attention than physics. It seems to me that more practical results and much better teaching might be obtained if a special teacher, trained for the work, could go from school to school and teach physics, just as the music, drawing, etc., are taught.

## MUSIC.

This year our music teacher visited regularly only the grammar grades. The lower grades were left practically without instruction. The great value of music in our course of study demands better facilities for giving the instruction. We should have a teacher in this division who could visit every school.

## PHYSICAL CULTURE.

The good that results from vigorous and intelligent instruction in physical culture is too obvious to need particularizing.

Our teaching force is entirely inadequate for this purpose.

This work was done as well during the year as, under the circumstances, could be expected.

## MANUAL TRAINING.

Great interest is manifested by the pupils in their manual training. Indeed, I feel that manual training is the bulwark of our hope in the future. The shop at the Randall has been used for first-year classes only, the advanced classes being forced to walk to the Miller building, which is a great distance from the Lincoln, Giddings, Randall, and Bell schools, from which classes were sent. There were days during the year when there were no classes at the Randall shop, and I think such days might be given to instructing the advanced classes there. This would result in preventing the great loss of time attendant upon the long walk to the Miller building.

A still greater objection can be raised against the dressmaking class at the Cook School. Girls are compelled to walk from Capitol Hill and South Washington all the way to the Cook building. I trust some other arrangement will be made for the ensuing year.

The arrangement of the working classes was excellent, and the instruction in our schools very good.

## ATTENDANCE AND DISCIPLINE.

The attendance has been good this year, considering the inroads made upon the pupils by the epidemics of diphtheria and scarlet fever that have been so prevalent throughout the city during the school months.

There has been marked improvement in the discipline. Suspensions and cases of discipline have decreased very considerably.



## LECTURES.

We had a very interesting and instructive course of lectures during the winter. The course was introduced by President Mitchell, of the school board, and included lectures by Superintendent Powell, on Language; Maj. J. W. Powell, on the Physiography of the United States; Superintendent Powell, on How a Child Learns; Dr. L. R. Klemm, on History; Prof. W. H. Seaman, an illustrated lecture on Botany; Rev. F. J. Grimke, on Moral Training, and Dr. D. S. Lamb, on School Hygiene. Your illness prevented your own lecture, in this course, on School Discipline; Rights of Parents, Teachers, and pupils.

The aim was to provide some means for stimulating the teachers to broader study and thought, believing that broader work would result. The teachers of the seventh and eighth A divisions were invited, and great interest was shown by all.

## PARENTS' DAYS.

In each building one Friday in each month during the year was set apart as parents' day, when, the parents of the pupils being specially invited to come to the school, the regular exercises were interspersed with music and recitations, and the pupils' work in drawing, language, modeling, and manual training was exhibited.

A great many parents came out on these days, and their visits encouraged the children and teachers and brought the visitors into closer relationship with the schools.

## LIBRARIES.

Each building in the division has a small library. We hope to unite them in one, put them in some central place, and give all the children in the division the benefit of the books.

Special attention will be paid our library another year, and we hope to make it a practical aid to the schools.

The teachers have also contributed a small sum monthly, which has been devoted to the purchase of suitable works on pedagogical subjects. We have 40 books in the teachers' library.

## BUILDINGS.

The sanitary condition of the Giddings and Ambush schools is excellent. The Lincoln is in good condition. In my last report I called attention to the water-closets in the Randall and Bowen schools. I urged that something be done to protect the pupils of those buildings against the baneful influences attendant upon the use of closets without partitions or screens of any kind. This evil is too glaring to be longer overlooked, and demands immediate attention. We can not teach purity of thought and action amid such surroundings, and I earnestly hope that another year will find this evil remedied.

The Bell School is in the same condition as last year. The basement overflows after every rain, which keeps the walls and floors damp during the entire winter, the result being rooms filled with air so foul as to endanger the health and possibly the lives of teachers and pupils.

#### NEW SCHOOLS.

The Lincoln, Giddings, Bell, and Randall schools have been crowded during the entire year. Third-grade pupils have been compelled to attend half-day schools. In the Lincoln small children have been forced into rooms on the third floor that were never intended, in the original plans of the building, for schoolrooms, and which are dark, poorly heated, and without ventilation. They are directly under the tin roof, and in warm weather the children suffer from the intense heat and breathe an atmosphere impregnated with the poisonous gases arising from their own exhalations and excretions. These rooms should not be used as schoolrooms. There is pressing need of additional accommodations in this division.

#### JANITORS.

The janitors of this division are to be commended for the very creditable condition in which they have kept their buildings.

Without exception they have earnestly and faithfully performed every duty required of them. The buildings, outhouses, and grounds are clean and but few complaints of any kind have reached me.

#### CONCLUSION.

Taken altogether, the school year has been a pleasant one in this division, and has given us a degree of prosperity in the education of our youth that inspires us with hope for still better things in the year to come.

The teachers have been willing, cheerful, and faithful, and the conscientious discharge of their duties when, by reason of ill health, I was unable personally to supervise their work shows their high appreciation of the nature and character of the services they are expected to render and their jealous regard for their own good names.

Mrs. Martha E. Tucker, principal of Randall building, was designated to assist me through the period of my illness, and her efficient services, which relieved me from great mental anxiety no less than from onerous duties, I hold, personally, in the highest esteem.

Your own kindness and courtesy toward me and toward the teachers of this division have been unvarying throughout the year, and have been a source of gratification and encouragement to all.

Our local trustee, Mr. L. A. Cornish, has been unremitting in his efforts to assist me, in every way, in the discharge of my duties. The ready aid that he has given me has not only helped me in particular

cases, but his cordial sympathy with us in our work has constantly stimulated the whole corps in the universal desire to reach the highest and best results attainable in the division.

Very respectfully,

J. H. N. WARING,  
*Supervising Principal.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

---

#### HIGH SCHOOL.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit herewith my annual report for the year ending June 30, 1892.

The whole number of pupils enrolled in this school during the year was 407. The average number enrolled was 364, and the average number in daily attendance was 349. The percentage of attendance was 95.8. There were 309 pupils in the academic course, and 98 pupils in the business course.

There were 17 teachers, including the principal.

#### BUILDING ACCOMMODATIONS.

We entered our large and elegant new building on M street, between New Jersey avenue and First street NW., at the beginning of the year. It is admirably suited for a high school, with all modern conveniences. The physical, chemical, and botanical laboratories are well constructed, and fully adapted to teach those sciences, while the study halls and armory supply a long-felt want; the assembly hall enables us to collect all the pupils conveniently for rhetorical exercises and lectures, and the library and reading room are a great help to the pupils.

#### INSTRUCTION.

While there are three courses of study offered to the pupils, academic, scientific, and business, we have only had applicants for the academic and business, the former requiring three, and the latter two years for its completion.

I would respectfully recommend a change in the scientific course. I can best present my views by quoting from a letter I wrote to the High School committee, at their request, in May, asking for suggestions tending to improve the course:

I would suggest a change in the scientific course. I can not see why the mere substitution of the German for the Latin language for three years should change the academic into the scientific course, for this is the only difference between the two courses. I would suggest that the scientific course be changed into a course



in science and the mechanic arts, embracing the study of English, geometry, drawing, physics, chemistry, wood and metal work, and steam engineering. This course would be similar to the one pursued in the great manual training and industrial schools of Philadelphia, New York, Boston, and Chicago.

In the important development of manufactures, mining, steam and water transportation, the mechanic arts, and the wonderful modern uses of electricity, a graduate from such a course would be better equipped to meet the modern demands than one pursuing the course as at present constituted.

Fortunately for us we have the means of establishing such a course without any additional teachers or buildings or other expenses. The wood and metal work and steam engineering can be pursued in our present establishment for that purpose, and with our present force of instructors, who are fully competent.

The English, drawing, physics, and chemistry can be pursued in the class room and laboratories of this school. Thus the same teachers, workshops, and laboratories that we now have can be utilized, and a course of great advantage and benefit to the pupils be established without an increased expenditure, and Washington be placed alongside of the other great cities and centers of educational advancement and improvement.

I earnestly hope that your committee will take this matter into serious consideration, and decide to establish this course this fall; that will confer such a great benefit on our boys, and qualify them to become useful citizens, and be prepared for the serious and responsible duties of life. The education thus conferred will have the double advantage of mental development and discipline, and the practical result of securing immediate and remunerative employment.

#### MARKING AND DISCIPLINE.

We do not recommend any change in the system or method adopted to ascertain and determine the scholarship and conduct of the pupils. The recitations are marked when made, and at the end of each quarter those pupils who have not attained an average of 75 in each study are required to enter the examination in that study.

The attendance and behavior of pupils also are essential elements of exemption from examination. Those who are absent from school more than three days in a quarter must enter all the examinations for that quarter, while those whose record in deportment is below 85 in any quarter must also enter all the examinations for that quarter. Thus, any one of the three things mentioned, scholarship, attendance, and deportment, may compel a pupil to enter the examinations, while a satisfactory status in all three are necessary for exemption.

The pupils are required to make an annual average of 65 in each major study and 50 in each minor study, for the purpose of unconditional promotion or graduation. If pupils of the third year fail to make the required average they can not graduate, and if pupils of the first and second years also fail in two of the four major studies they are promoted conditionally; and are examined at the beginning of the next school year. If the examination is satisfactory the condition is removed; otherwise they remain unclassified.

Our experience has satisfied us that this method is sufficient to call forth the highest exertion on the part of the pupils in their scholarship and it also affects the attendance and behavior most favorably. The pupils consider it a reflection upon them to be compelled to enter the

examinations, and their pride and ambition therefore induce them to satisfy all the conditions of scholarship, attendance, and behavior which are necessary to avoid them.

I can best give a general view of the work as a whole by furnishing a circular containing the course of study. I shall now state briefly the amount and nature of the work performed in each subject:

Year.	Academic.	Scientific.	Business.
First .....	English. History. Algebra. Latin. Physiology. Physical geog-raphy. } Lectures.	English. History. Algebra. German. Physiology. Physical geog-raphy. } Lectures.	English. Business arithmetic. Bookkeeping. Penmanship. Shorthand. <i>Typewriting or mechanical drawing.</i>
Second .....	English. English history. Geometry. Latin. Physics.	English. English history. Geometry. German. Physics.	English. Bookkeeping and business practice. Commercial law and commercial geography. Political economy. Shorthand and typewriting. <i>Mechanical drawing.</i>
Third .....	<i>Trigonometry and surveying or history.</i> Latin. English. German or advanced physics. Botany and chemistry and mineralogy. <i>Political economy.</i>	<i>Trigonometry and surveying or history.</i> German. English. <i>Advanced physics.</i> Botany and chemistry and mineralogy. <i>Political economy.</i>	Each year of this course is complete in itself.

Elective studies are printed in italics; all others are prescribed.

General exercises in composition and drawing are required in all the courses; a general exercise in music is optional, except for normal-school candidates, for whom it is prescribed.

Military drills will be conducted under the same regulations as during the past year.

Manual training for pupils of both sexes throughout each course is optional.

Not more than four studies may be pursued at one time.

Candidates for diplomas must pursue all the prescribed studies; students who, from any cause, fail to meet this requirement are enrolled as "unclassified" and can not graduate until the prescribed work is satisfactorily made up.

Pupils who desire to prepare for college can make special arrangements of their courses upon written application to the principal.

#### ACADEMIC COURSE.

This subject is studied during the entire three years of this course. In the first year four hours a week are given to English, three in the second year, and four in the third. The course pursued is substantially similar to that of the previous year and consists of the following: In the first year the pupils use Chittenden's Composition as a text-book, supplemented by reading authors from the classic series.

They had a thorough drill in punctuation, capitalization, and letter-writing; also transformation of elements, principles of expression and reproduction.

They read and studied Legend of Sleepy Hollow, Rip Winkle, and Evangeline, and were required to give typical outlines of stories and reproductions from those outlines. Attention was also given to figures



of speech and their use in composition. In the second-year class most of the first quarter was spent in drilling the pupils in the fundamental principles of correctness, clearness, force, and beauty. Throughout the year practice in outlining subjects and in the various kinds of composition formed a part of each week's work.

The subject of American literature as a whole was studied; and in the class rooms selections from Whittier, Longfellow, Hawthorne, and Bryant were read and analyzed. In connection with the reading the pupils were required to make a study of each author and to write a biographical sketch of him. After finishing each selection the class wrote a summary of the work and reproduced descriptions of characters and scenes given therein.

Pupils were also required to memorize passages noted for beauty of thought and expression.

The third-year class completed the study of American poets during the first quarter. The three remaining quarters were spent in the study of the history of English literature and the critical reading of the Merchant of Venice and Hamlet and a part of Milton's Paradise Lost. Essays were required at different times on subjects relating to important epochs in English history and literature, such as Wycliffe and his Bible, English Life in the Fourteenth Century, etc.

*Latin.*—The classes of the first year in Latin have been instructed in all the fundamental Latin forms as embraced in Collar & Daniell's book for beginners. For practice work in the syntax of cases and peculiar Latin constructions, exercises in Latin-English, and English-Latin from White's Straight Road to Cæsar were given almost daily. At the beginning of the fourth quarter Cæsar was taken up and the pupils were thoroughly drilled in the few chapters read. Special attention was given to the syntax of indirect discourse in simple and complex sentences, ablative absolute, the syntax of the gerund, gerundive, supines, infinitives, clauses of purpose, and ordinary clauses of result, as well as the more elementary constructions of Latin case-relations.

In the second year the pupils read the first and second books of Cæsar and the first oration against Catiline. They were required also to write Latin composition weekly. The time devoted to Latin in the second year was but three hours a week, and not as much, therefore, was accomplished as in previous years when four hours a week were given. In the third year the pupils read the second oration of Cicero against Catiline, and Cicero's oration for Archias, also two books of Virgil's Æneid. The remainder of their work consisted in a general review of the grammar, especial attention being given to classification of the Latin sentence and prosody with Latin composition.

*German.*—German is studied for one year only, in the third-year class. The natural method of teaching is followed, Stern's Studien und Plaudereien, and Bernhardt's Sprachbuch being studied during the first and second quarters. In the third and fourth quarters the comedy of



Ganselm von Buchenan was read. Frequent exercises in writing, both English and German script being used, were given by means of the reproduction of anecdotes and short stories, with conversation also on the same.

*Mathematics: Algebra.*—In this subject the usual ground has been covered, comprising Wentworth's School Algebra. Thoroughness and accuracy were kept constantly in view. Wentworth and Hill's Exercise Manual has proved a valuable assistant in the way of supplementary work, supplying number and variety of examples for combination and application of principles.

*Geometry.*—The pupils of the second year studied five books of Wentworth's New Plane and Solid Geometry. The result was satisfactory, great attention being given to instilling into the minds of the pupils the habit of "think before you speak." No pupils of the third year selected the subjects of solid geometry and trigonometry and surveying, and there were therefore no classes in these subjects this year.

*History.*—This subject is studied through the first and second years of the course, the pupils in each year reciting three times a week.

The methods pursued were the same as those of last year. In Greek and Roman history in the first year Myer's History was used as the basis of our work. By the system of topics much valuable information was gained and so tabulated as to show the connection between the past and present. Distinguished historical characters, both in Greek and Roman history, were assigned pupils in September, and at the end of the year's grade work talks were given on the same by the pupils from topics arranged on the board. The second year's work consisted of English history. The pupils were required to write papers at the close of the year on the life and times of the distinguished characters in English history, and thus show the result of their work, which was, on the whole, satisfactory. It will be necessary, however, to lengthen the time to four hours a week in the first year to accomplish more satisfactory results.

*Physics.*—The second-year classes pursued the course laid down as far as electric measurements. In the written reviews this year Dr. Gage's Physical Laboratory Manual and Note Book was used. The quantitative work was also increased. The third-year class did laboratory work and study in the following subjects: Electrotyping, electric measurements, the induction coil, electric silvering, the telephone, stereopticon-slide making, and the camera and photograph.

*Chemistry.*—This subject was taught for the first time in this school. We have never had the advantages of a laboratory before, and it was therefore impossible to teach it. The pupils of the third year only study chemistry. They give four hours a week to the subject. The time was divided between laboratory work and class work, the latter including experiments performed before the class by the instructor and occasionally by the pupils, recitations, reaction work, problems, oral

reviews, and written reviews at least once a quarter. The subject of inorganic chemistry, as presented by Eliot and Storer, was completed, and several of the important compounds under organic chemistry were carefully considered. Additional facts were presented to the class by means of lectures.

The laboratory work was an important factor in the work of the year, for in the laboratory the pupil comes in immediate contact with facts presented in the text-books, and is there able to observe the principles therein presented, to investigate other facts and phenomena, and from the various results obtained to draw his conclusions independently. By means of the answers and reactions required after the experiment was completed the pupils were forced to observe and carefully note each step in the experiment, and thus they were able to investigate and observe for themselves.

*National sciences.*—All the pupils of the first year in the academic course have received lectures once a week in physiology and physical geography. They were required to take full and careful notes of the lectures, and were then examined on the subjects. Their note-books were also examined and marked for neatness and accuracy.

#### BUSINESS COURSE.

*English.*—This subject is taught in both the first and second years of this course. The same method is pursued as in the corresponding years of the academic course, with this exception, the pupils are required to do more practical work in letter-writing and composition of a character more suited to business purposes.

*Arithmetic.*—This subject is reviewed in both years of the business course during the first and second quarters. The pupils were required to perform examples in percentage, with its various applications to profit and loss, commission, interest, discount, stocks and bonds, and exchange. The work done was wholly individual, the problems being placed on the blackboard and worked by the pupils in the class rooms under the supervision of the teacher. All the answers were then handed to the teacher, and a pupil selected to place his work on the board and explain to the class. By this method independent thought and knowledge of the principles governing the example were shown, and the pupils thus acquired not only a knowledge of the rules, but the reasons for their existence.

*Bookkeeping.*—This subject is taught in the third and fourth quarters of the first and second years. Single entry is taught to the first year and double entry to the second. The relations of debits and credits were carefully explained to the pupils, and abundant exercises given to show that they were comprehended. The sets given in the text-books, Bryant & Stratton's Common School and High School, were written up in succession, by each pupil, and carefully examined and corrected.



Such explanations were given as were necessary to enable the pupils to fully understand and apply the principles of this science.

*Commercial law.*—This subject is taught by a series of lectures in the fourth quarter to the pupils of the second year. The pupils were required to take notes in shorthand, and are subsequently examined orally and in writing. The subjects of the lectures are: The sources of law, contracts, agency, partnership, corporations, sale and commercial paper.

*Shorthand.*—In this subject the work done was substantially the same as that contained in Pitman's Manual, together with supplementary matter taken from other standard works on the subject. The aim has been to give the pupil a thorough, practical knowledge of the first principles, the habit of making accurate characters, the ability to read readily shorthand matter; and, most important of all, ease in reading everything which they might write in shorthand.

The foregoing ends have largely determined the method of instruction used. The progress made has been as satisfactory as could have been expected. Better progress will, however, be made next year, as the second year will then for the first time, have two full years, the class that graduated this year having commenced in January, 1891.

*Typewriting.*—The typewriter is an invaluable adjunct to a business course. It has largely superseded the work of the pen. The progress of the work has been as satisfactory as could be expected under the circumstances. I would earnestly recommend that more attention be given to spelling in the lower grades, as this is one of the greatest difficulties we have in typewriting. We were not able to give the necessary time to acquire the speed desirable. We had to give our attention, during the limited time allowed, to a knowledge of the construction of the instrument, and its successful manipulation, and the production of neat and accurate work. Speed will come from practice.

*Penmanship.*—The progress of penmanship has not been satisfactory. We gave two hours a week to it, but it was impossible to teach it successfully in that short time, and yet no more time could be spared in justice to the other subjects of the course. There is not a more important subject in the whole course than penmanship, for very often it determines the employment of an applicant by the good impression it makes at first. We earnestly recommend that more attention be given to this subject in the grammar grades, so that when the pupils come up to the High School they will possess such a degree of proficiency that their time may be devoted to the other important subjects of the course not taught in the grammar grades.

#### DRAWING.

All the pupils of the school are required to attend the regular classes in drawing one hour a week during the whole year. The special classes are optional. There were several special classes composed of the most



apt pupils selected by the drawing director. They gave two hours a week additional to this subject.

The regular classes pursued the same method followed last year, drawing various geometrical forms, and making designs from natural forms in paper, clay, wood, and plaster. The special classes are taught wood-carving, modeling in clay and plaster, water-color painting, and mechanical drawing. The pupils in these classes have developed remarkable talent in this direction, and their work is greatly admired by all visitors.

#### MUSIC.

The work in music has been very unsatisfactory. Music has been elective in this school until this year, and the pupils have so many compulsory studies in the short time allowed for the course (three years) that they seldom take elective studies. The determination to make music compulsory hereafter for all who wish to enter the Normal School found the pupils at all stages of preparation, and many failures were the results in the first and second years, and therefore conditional promotions, while special arrangements had to be made for third-year pupils to enable them to satisfy the requirements for music in graduation. I would respectfully recommend that more attention be given to music in the grammar grades, so that the teacher in the High School should not be compelled to give his attention to elementary work, which should have been taught previously.

#### MANUAL TRAINING.

Thirty-four boys attended the carpenter shop for one hour per week, and thirty-seven boys the metal shop for the same time. This work is elective and, as I reported last year, the time is altogether too short to accomplish much good; it should be extended to two hours at least, or, what is better still, a regular course in manual training be substituted for the scientific course, as I recommended in the previous part of this report under the head of instruction.

One hundred and thirteen girls received instructions in cooking two hours a week.

As it is now, the pupils seldom elect any additional work. The work required to graduate takes up all their time.

#### MILITARY DRILL.

The armory is one of the many advantages afforded by this new building. Seventy-five of the 100 boys in the school elected to join the company, and, under the admirable teaching of Capt. Arthur Brooks, made most commendable progress.

We have applied for the guns and accouterments to the War Department, and hope to have them in our possession by October 1. The

members of the company expect to obtain their uniforms, also, by that time, and thus be fully equipped to make a creditable appearance in public.

#### LIBRARY.

We have a small library composed of about 750 volumes. A part of these books were donated and the rest purchased from the proceeds of entertainments given by the pupils for that purpose. The pupils gave two entertainments during the year just closed for that purpose, and were successful in raising \$500 net for that purpose and the purchase of a new piano for the school. We shall therefore be enabled to increase our library to 1,000 volumes.

#### RHETORICAL EXERCISES.

Rhetorical exercises are held in each class room during the last hour on each alternate Friday afternoon. Each pupil is required to recite, to read a selection, and to write an essay or engage in a discussion, once during the year.

Once a month general rhetorical exercises are held in the assembly hall before the entire school. Each class is represented by one pupil. The literary exercises are supplemented by musical performances, both vocal and instrumental. These exercises are greatly enjoyed by the pupils and their parents and friends, whom they are allowed to invite. The opportunity to display their dramatic and musical ability is greatly appreciated by the pupils, and their continued development encouraged.

#### PHYSICAL TRAINING.

A teacher was assigned to this duty for the benefit of the girls of the school for the first time this year. The excellent effect of such training was very visible in the carriage and demeanor of the girls; and will no doubt show still better effect next year and the year after, as the girls receive two and three years benefit from it.

#### GRADUATION.

The graduating exercises were held in the Academy of Music, Wednesday night, June 22, 1892. There were 69 graduates, 19 males and 50 females; 8 males and 46 females from the academic course and 11 males and 4 females from the business course. Hon. B. K. Bruce, member of the High and Normal Schools committee, presided. Hon. J. W. Douglass, Chairman of the Board of Commissioners of the District of Columbia, presented the diplomas. A large audience of the parents and friends of the pupils, numbering 2,000, was present.

The programme was as follows:

ORDER OF EXERCISES.

Overture—"Pretty as a Picture" ..... Catlin.  
 Selection—"Brigands" ..... Offenbach.  
 March—"Loyal Legion" ..... Sousa.

INVOCATION.

La Castanera ..... Rodriguez.  
 Salutory—The Debt We Owe to Isabella of Spain,  
 ANNIE G. SHORTER.  
 Oration—The value of a Business Course and Industrial Training,  
 WM. A. WELLS, Jr.  
 La Caravane ..... J. Asche.  
 Oration—The Perpetuity of Republican Institutions,  
 ROBERT D. BROWN.  
 Valedictory ..... S. CECILIA JOHNSON.  
 Cocoanut Dance ..... A. Herman.

Conferring of diplomas by the Hon. J. W. Douglass, president of the  
 Board of Commissioners, District of Columbia.

Address by the Hon. FREDERICK DOUGLASS.

BENEDICTION.

Gallop—"Always Jolly" ..... Zikoff.  
 Music by the Marine Band, Walter F. Smith, conductor.  
 Very respectfully,

F. L. CARDOZO,  
 Principal.

Mr. G. F. T. COOK,  
 Superintendent of Public Schools.

NORMAL SCHOOL.

WASHINGTON, D. C., June 30, 1892.

DEAR SIR: On reviewing the work of this school for the past year, I am pleased to note that there has been a perceptible progress in the fitness and purpose of each member of the class. Yet I would not have you think that the ideal has been reached. Many facts may be stated as the cause, prominent among which stands, "no artificial process of training can create talent."

Normal training gathers and develops in an orderly and systematic manner whatever of latent power or ability the individual may possess and thus raises the artisan in the science of teaching to the lofty plane of an artist.

The normal school is but an auxiliary to the common school, is sustained by the common school, which in turn draws its best nutriment from the normal school. The normal school should be a professional school, having for its specific purpose instruction in the art and science of teaching; its aim, the production of good teachers.



It does not profess to give instruction in the elementary branches, but strives to teach the art of teaching the same, so as to bring about the most desirable results in the shortest possible space of time. But as this art can not be acquired without a corresponding breadth and depth of each subject taught, the pupil leaving the normal school must be better grounded in the elements of learning than ever before.

Necessity, however, frequently renders it obligatory to spend a portion of our time in such instruction; hence the best normal schools throughout the country have an added academical course occupying an additional year to the training. The art of teaching can not be acquired successfully when the subject matter is not thoroughly mastered. All praise to those who would elevate the standard of admission, intellectually, morally, and physically.

May the struggle never cease in the right direction. Our teachers are the public guardians of our future citizens; and, as such, should be thoroughly equipped for the work, leaders among men; bright and shining examples of the possibilities of right training, correct thinking and doing.

To remedy this deficiency, I would suggest that a division be made at the beginning of the third year, those intending to take a normal training be allowed to have a severe and rigid review of arithmetic, physical geography, English grammar and composition, with the addition of trigonometry, mental philosophy, botany, social and political economy; such a course wisely directed would inspire a love for learning and cultivate habits of industry and system of study.

The character and value of a normal school is largely dependent upon the quality of its teachers. They should be persons of large experience as well as culture. Their knowledge of subjects taught should be thorough and complete, extending beyond the confines of the books of the profession; these she must use only as lamps are used, to lighten the dark places.

In my opinion too much effort is expended in schools generally, and normal school particularly, in memorizing the theories of others, too little to original thinking and doing. The teacher is to work upon an invisible intangible something, called mind, in order to arouse it to activity and to train it in the right direction—reading, writing, and arithmetic are the materials with which she works.

Methods are deductions, and to be productive must have the light of originality—personality of the teacher thrown in and upon them. "Intelligent labor sheds light upon the path of the laborer." Children are not all cast in the same mold; they at least have individuality, even though false teachings change the fact in after life. They vary in temperaments as well as in mental power, and to be successfully trained due attention must be given to these peculiarities.

The true teacher realizes the strength and force of these tremendous differences, and labors hard and long to bring order out of chaos. She

enters the work full of enthusiasm, inspired with a love of learning, her highest ambition to benefit others, throws her living self into the labor, and thus masters these seemingly endless difficulties by lightening the labor of to-day by bright visions of to-morrow. Her children imbibe the spirit and all is well.

Her aim is character-building, developing and strengthening the cardinal virtues—obedience, truth, and love—in whose trend follows order, respect for the rights of others, and a desire for knowledge. As this ideal is approximated, teaching ceases to become a task and merges into a pleasure. Day by day she sees the labor of her head, heart, and hand developing and bringing forth fruit. The relation of head to head is of secondary importance to that of heart to heart.

During the past year the Reaper, whose name is Death, has entered our fold and taken from us one of our choicest and best, Miss Inez Kelly. Her life was a short one, but full of ripe fruit; she labored always to do her whole duty and was unusually successful. We all, teachers and classmates, sincerely mourn her loss.

Our class numbered at the close of the year, 25 young women, each of whom has labored zealously during the year. The relations between pupils and teachers have been most cordial and helpful. I feel quite safe in predicting that the general corps of teachers will be benefited by the acquisition.

The following table will show the course of study, number of hours per week, the number of weeks pursued, and by whom taught.

Study.	Hours per week.	Number of weeks.	Taught by—
Pedagogy.....	3	20	Principal.
Psychology.....	3	20	Principal.
Physiology.....	5	10	Principal.
Methods of instruction*.....	5	30	Principal.
Language.....	2	20	Miss Taylor.
Geography.....	1	10	Miss Taylor.
Object lessons.....	1	20	Miss Hand.
Printing.....	1	10	Miss Hand.
Penmanship.....	2	20	Miss Smith.

\* Language above third grade or grammar proper; arithmetic, reading, spelling, and history from first to eighth grade, inclusive.

Keeping in mind the object of the normal school to train teachers to teach so as to make them expert in the art, the most important study is pedagogy, its object to give scientific ideas upon education in general, to help the pupil's power of research, and to form a complete idea of the end as well as the ways and means of education in the common school. The science of education has for its base and apex the nature of the being to be educated; the laws which govern the development of the intellectual and moral faculties.



Every faculty of our nature has its own period of development, as well as its own peculiar mode of development. The philosophical educator makes this law the foundation and aim of all his methods of instruction and government, and thus gives strength to the weak, encouragement to the timid, and repression to the precocious.

Among the topics discussed are: (1) The nature of the faculties as to office, relation, classification with respect to their simultaneous cultivation; (2) subjects best adapted; (3) motives; (4) how to establish habits of action; (5) methods of instruction; (6) application of results to the different periods, etc. Thus you will see that our aim is rather practical than speculative.

We merely seek to lay the groundwork of education; to give a body of well-ascertained truths respecting the fundamental properties of the human being, from which the right and sound methods of teaching and training the young may be derived.

Exclusive devotion to intellectual pursuits, with a corresponding neglect of the physical, will reduce the physical powers to their minimum, and, reacting, will diminish the intellectual power also. Without a familiar acquaintance with the physiological and hygienic laws no teacher is prepared to enter upon her work, for she is apt to vitiate the most perfect system of teaching.

Dr. Thomas has kindly and ably assisted us in the pursuit of this knowledge by giving weekly talks upon the topics studied during the week.

#### SCHOOL MANAGEMENT.

The art of so directing school affairs as to produce system, order, and efficiency seems to be one of the peculiar functions of the normal school, and should be as thoroughly and as systematically taught as is arithmetic or any of the fundamental branches.

Under school management the pupil-teacher learns to keep and balance her accounts with the school officers; to organize her school; to classify her pupils; to arrange a time and place for everything; to learn the art of securing and holding attention, the art of questioning, the order of studies, the relative value of studies, and last, but not least, school ethics.

#### MORAL PHILOSOPHY.

To each individual is given a moral as well as a rational nature; the teacher is professionally obligated to provide for its cultivation. Should she neglect this, her first duty to society, she is culpable. Abundance of material can be found in history, biography, anecdote, and every-day life of her pupils. The importance of right thinking and doing can not be overestimated. Every opportunity should be embraced to cultivate and habituate right motives of action.

Sympathy is the underlying principle of all moral training; hence the teacher's life—her character—determines the character of the school.



## PENMANSHIP.

This subject has received, under the careful, painstaking training of Miss Smith, especial attention. The results have been most excellent.

## OBJECT LESSONS.

Object lessons proper have received especial care from Miss Hand, who has given one hour per week for twenty weeks to a most thorough drill, both theoretically and practically.

## LANGUAGE.

Special attention has been given to language in the primary grades by Miss Taylor, whose chief effort has been toward forming the habit of correct expression of thought, both oral and written. She first presents an object for thought and leads the little ones to describe the same in a logical and grammatical manner.

Sewing has been taught very successfully by Miss Syphax, who has given one hour per week during the year.

Music was taught by Mr. Grant, and drawing by Mr. Hunster, both of whom have spared no pains to make the subjects interesting and instructive.

## READING.

The *how* and the *what* have received careful consideration. The eye and the hand have been trained in describing the details of the word-picture, as in spelling and in writing; while for training the mouth and ear to their part of the process, the phonic device has been found both serviceable and psychological. At every step the mind is taught to rely upon its own powers.

## PRACTICE.

"The possession of knowledge does not necessarily carry with it the faculty of communicating knowledge to others."

To acquire and to impart are very dissimilar mental operations. The art of imparting is the main qualification of a normal pupil. Since he who would become an expert must practice, it follows that the practical side of normal training is by far the most valuable. After ten weeks' instruction in science and art of teaching, the pupils are sent into the practice schools of the primary grades, where they remain for two weeks, observing the model lessons in teaching and governing, as given by teachers in practice schools and the principal. Each pupil keeps a journal, in which she records lessons given, noting what principles have been applied, etc., and takes general observations. This journal is inspected and criticized by the teachers and principal. After this probationary period, they are practiced in all that devolves upon a regular teacher. They prepare the lessons to be taught and submit

them to the examination of the teacher in charge of the practice school to whose pupils the lesson is to be given. She goes over the whole lesson carefully, pointing out errors or defects, and gives due credit for whatever merits commendation. During March and April, each pupil is assigned to full charge of a first grade school, and the teacher in charge aids, suggests, and reports to the principal, who makes daily visits to these schools.

Permit me, Mr. Superintendent, to make the following suggestions for broadening and improving the work done in the normal school.

- (1) A more liberal supply of text and reference books.
- (2) The change in high-school course for those intending to take normal examination.
- (3) That a piano be purchased for the school.
- (4) That Magruder building be used exclusively for normal school purposes.
- (5) That a kindergarten be opened in the building for the observation and practice of normal pupils.
- (6) That all marking in normal school for standing be abolished; that in its stead an examination, with a view to determine the teaching qualification, be held under the control and entire supervision of the superintendent and trustees, and appointments be made in accordance with such standing.
- (7) That the greatest care be exercised in selecting material for the normal school, attention being directed not alone to the possession of knowledge, but that each one has a physical as well as moral qualification.

In closing, permit me to express my grateful thanks for hearty and cheerful coöperation to teachers of the school, trustees, and yourself.

I am, sir, very respectfully,

LUCY E. MOTEN,  
*Principal.*

Mr. G. F. T. Cook,  
*Superintendent of Public Schools.*

---

#### DRAWING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I realize that this is not a time for compliments, but rather a time to present to you, and through you to the public, a correct statement of the work assigned to me.

Each year brings new requirements, and therefore new developments. Ambition inspires one to make plans which, for want of time, material, or other causes, scarcely ever materialize. Last year was not an exception to this rule.



I am glad to say, however, that, by the help of my assistants and a more united effort on the part of the regular teachers, the year's work closed with gratifying results.

I endeavored to keep the regular teachers informed in a general way, by having grade meetings. A great deal of individual instruction was given by the special teachers, which proved to be very beneficial to the regular teachers and pupils. I also requested all teachers to apply to me for instruction. Still I am satisfied that some teachers did not receive the attention I should have been glad to give.

My assistants worked by programs made to cover every school hour, with no intermission except the regular recess time.

I was unable to visit the graded schools, my time being consumed by teaching the regular and special classes of the high and normal schools. The only graded schools I found time to visit were those reported as being behind in their work. I regret my inability to visit the graded schools in a general way.

While I do not believe in flattery, yet I know that an honest compliment is never lost on a worthy teacher or pupil. I am glad to say that the majority of the teachers desire such encouragement, and, though I do not often have the privilege or pleasure to give it, yet, I believe the other gentlemen associated with me do not fail in this matter.

An effort was made to make the work practical in all schools from the first through the high school. Material work was carried on in connection with the drawing. The material work seems to interest and benefit the pupils more than the drawing alone.

We have to thank you for furnishing more material than usual. The way in which it was used will prove, I trust, the wisdom of such expenditure.

The first and second grade schools pursued the same course as last year. In some respects the work was improved, the teachers seem to realize the value of object lessons, and hence they do not rely on black-board illustrations as much as they did in the past.

The clay work was good, though not as good as it should have been. A great deal of instruction is given to the pupils of the normal school on this subject, but many teachers allow the clay to get hard; then come hammers and water, then mud; last, but not least, disgust. All of this might be avoided with a little care. Although many teachers find clay work disagreeable, yet I think all agree that it is the best material to impress form; therefore its use should be continued.

Stick-laying, paper-folding, and paper-cutting were carried on in about the usual way, a few new features being added.

In these grades the subject of color has not been taught, except perhaps by a few teachers. I hope the Prang colors will be introduced the coming year in all grades from first through the fourth.

The work of the third and fourth grades was better than it has ever



been in these schools. Tablets were used, and the absence of printed text-books or manuals made it necessary to give the teachers detailed instruction on each lesson. A number of lessons was given to each teacher. These were required of her school. Then a certain amount of material work was given. All teachers were encouraged to develop the principles upon which the lessons were given and to make other similar ones. It gives the special teachers more work. It also gives the pupils more instruction to carry on the work in this way.

The fifth, sixth, and seventh grades were conducted on the same plan as last year, using the regular text-books. Their book work was very good, but their paper work outside of the book was better.

The eighth-grade schools did very good work. This was perhaps due to the fact that the work was managed in the same manner as the third and fourth grade schools.

The high-school work was creditable. I am pleased to say that the young ladies and gentlemen worked hard on their drawing, and no doubt would do excellent work if they had worked as hard in the graded schools. The fact that a pupil who can not draw at all can enter the high school gives this subject a disadvantage that others do not have.

It has always given me pleasure to speak of the normal classes. The class of 1892 is no exception. The uniform, ladylike manner in which they received me as a teacher will always be remembered with pleasure and appreciation. Their regular, patient, and faithful application to the work assigned entitles them to the highest praise.

My assistants have been faithful and have accomplished a great deal of work, but still they can not visit the schools often enough.

I therefore recommend that another teacher be appointed.

I can not close this report without referring to the death of Miss Mary Allen, my pupil and assistant. Miss Allen was appointed at the beginning of last year. Though in poor health at the time, yet full of ambition and hope, she entered upon her work. In a few weeks her health began to fail rapidly. On the 29th November, 1891, she died while seated in a chair making out her monthly report.

Very respectfully,

T. W. HUNSTER,  
*Director of Drawing.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

## MUSIC.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: Through the kind providence of Him who shapes our destinies we are again permitted to lay before you our report for the school year of 1891-'92.

Much time and care have been devoted to the endeavor to suppress that which seems to be an innate tendency, viz, loud and boisterous singing, accompanied with coarseness of utterance and improper articulation. We feel that progress and improvement has been made in that direction, but not the amount to be desired, for what we have striven to inculcate during the day we are sorry to state, in many instances, has been lost on the wings of the succeeding night.

It is much to be regretted that in the past school year so little time as one hour per week has been allotted to the study and practice of music. That amount of time is insufficient for most teachers. There are some, however, who can possibly accomplish the work laid out in the time specified. We make mention of this fact because it is our desire that our teachers may have no reasonable grounds for further complaint.

It is also a matter of regret that the pupils, especially of the higher grades, should feel that the amount of importance attached to music is of minor consideration and unequal to that of other studies. The result is they concentrate all their energy in other directions, leaving themselves deficient in music.

Thus they enter the normal school to prepare for the duties of the teacher.

We are happy to state that the prospects for the coming years seem brighter, for the reason that every pupil of the high school in the past year has been compelled to furnish himself with a music reader and to give due attention to the study of that branch.

In conclusion, considering the small amount of time at the disposal of our teachers and the number of half-day sessions during the year, on examination we found, with the exception of those to which your attention is directed in another paper, the schools doing well and on the advance.

Very respectfully,

H. F. GRANT,  
J. T. LAYTON,  
*Teachers of Music.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

## PHYSICAL CULTURE.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: With pleasure I submit the following report for the closing year:

At the beginning of the past scholastic year we entered upon our second of health exercises in the schools. The foundation was well laid the previous year and we had but to continue the weaving of the thread to form the network. Marked improvement has been shown in all grades and the entire year has been a progressive one. The schools were visited twice a month, as last year, and then the special teacher instructed the pupils, reviewing previous lessons, always proceeding on psychological principles from the simple to the complex. The time allotted to each lesson was from fifteen to twenty minutes, the pupils being required to do their best as regards accuracy and regularity in the performance of the work.

Special courses were laid out for the various grades which the special teachers followed, making changes where it was deemed advisable. The plans were arranged according to the age, muscular endurance, and ability of the pupils. We ever tried to keep in mind the old maxim, "Well begun is half done," and very often did we see the truth of it verified.

Accuracy and great precision were displayed in obeying the signals for rising and sitting, which in not a few cases fairly rivaled military precision; this was due to the interest the regular teacher and pupils took in our work, each striving to do his best.

No little stress was laid on correct breathing, the pupils' ideas being much better than the previous year. With the hygiene and physiology to substantiate our teaching, it took but a short while for the pupils to learn the right way, and, once learned, their inclination to do the wrong begins to disappear. Every lesson closed with a respiratory exercise, being one of the best means of rest.

Exercises for the head, trunk, and limbs were taught, as well as relaxing and energizing exercises. Our work this year was more extensive than last year, beginning in the first grade and ending in the Normal School. The first eight grades showed a most remarkable improvement, and all schools deserve some words of praise. While all did not attain the same degree of excellence, yet some slight progress was to be observed.

Lessons were given in the high school to the girls only, instruction being, as in other schools, twice a month, but owing to the large number of pupils composing the classes the desired satisfactory result was not obtained.

The normal pupils deserve special mention for their remarkable interest in the work; their zeal was truly marvelous, and many deserve the special marking "excellent." If they carry with them the knowledge



obtained of the child physically, his needs and desires, much good will be accomplished in the schoolroom as an aid to discipline.

Instruction in the Normal School was generally confined to the teaching of primary work. During their practice teaching the schools were visited and each required to give a lesson. It is ever true that a child loves a good disciplinarian, one who combines firmness with kindness. Such is to be hoped the normal pupils will make.

Owing to the large number of schools to be visited daily and the small teaching force, visits for supervision were very few.

Yet we did our best under the circumstances. In addition to the buildings visited the previous year, we had added this year the Slater, Phillips, High, and Normal schools.

In conclusion, permit me to thank Miss George for her assistance and support; the teachers of the regular schools; the supervising principals; the trustees; and you, our kind superintendent, who, when interest flagged and spirits were low, by remarks of encouragement, which were not "scattered as chaff to the wind," made light our hearts and helped strew our path with roses instead of thorns. Wishing the work much success, I remain,

Yours respectfully,

C. H. THOMAS,  
*Directress of Physical Culture.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

---

#### MANUAL TRAINING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit herewith my report for the year ending June 30, 1892:

I think this year's work shows great improvement in all the branches, and it seems that all the teachers have done their best to improve the schools. I had the pleasure of visiting the manual-training schools in Wilmington, Del., and found that our course is followed in their schools. On the whole, I think our schools will compare favorably with any I have had the honor to visit. In some training schools I visited I found that the boys have six hours a week and keep up with their other studies, and I hope that more time will be given to our pupils, and that the teachers will give more support to this branch than heretofore.

The number of pupils in the manual-training schools was 646, there being 88 in the metal shop and 558 in the four carpenter shops, making an increase this year of 40 pupils. The number of pieces made in my department this year is about 1,500.

The course of instruction in this work has been followed as heretofore, beginning by squaring and trimming a piece of lumber 3 inches wide,

seven-eighths of an inch thick, and 8 inches long; mortising and tenoning, dovetailing and inlaying, molding by hand, O. G., crown O. G., and nosing. The lessons included instructions on the nature and use of tools, instruction and practice in shop drawing, elementary work with plane, chisel, and saw; different kinds of joints, timber splices, cross joints, mortise and tenons, miter and frame work; examples in building, framing, roof trusses, and making small articles of furniture and cabinetwork.

#### TURNING.

A course in wood-turning extended through a part of the second and third years. The lessons comprised, first, nature and use of lathe and tools, plain and straight turning, caliper work to different diameters and lengths, simple and compound curves, screw plates and chuck work, hollow and spherical turning; second, a variety of whole and split patent core work, giving the pupils practice in forming irregular shapes in wood with lathe and carving tools, as well as familiarity with the nature and use of patterns for molding.

#### METAL WORK.

The metal shop consists of seven forges and five lathes. The first lessons are given in forge work, welding, and the making of iron hooks, hasps, and staples; hardening and tempering of steel; vise work; chipping and filing in vise benches; instructions on lathe and drill chucks; drill reamers, taps and dies, gauges, files, cutting tools, and special appliances for machinery; molding and casting in soft metal.

The lessons were so arranged that pupils in making a series of articles may become familiar with the nature of the metals under various conditions, and with successive steps in working it by hand into simple and complex forms, upsetting, bending, cutting, punching, welding by various methods, tool-forging, tempering, and hardening. In connection with this work lectures were given on the metallurgy and working of metals used in the industrial arts.

The work included cast iron, wrought iron, steel and brass, plain and cylindrical turning, turning to various diameters and lengths, taper-turning, facing with chuck and face plates, drilling, both in drill and lathes, reaming, boring, screw-cutting with lathe taps and dies, planing, slotting, etc., with planer and sharper, and milling various forms.

Lectures were also given during the year on various subjects connected with machine work in metal, such as forms, constructions, and the use of machines, cutting tools, gearing, gauge, screw threads, etc. Some pieces of construction work were given to the classes. All drawings with dimensions required were put on the blackboard, and then copied on paper by the pupils, thus each one works from his own drawing.

This was supplemented wherever necessary by the actual construction



of the lesson by the teacher before the class by inspection and direction at the bench.

I feel that there are reasons for gratification in a review of the work of the year. A good year's work was done and evident progress was made in the ways of doing better work, the results of which may be looked for another year.

Permit me to thank Mr. L. A. Cornish, the trustee, for the support and assistance, and also the supervising principals, and you, sir, for that official courtesy which you know so well how to show to those associated with you.

Very respectfully,

J. H. HILL,  
*Director of Manual Training.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

---

#### COOKING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I herewith tender to you my annual report of the cooking schools of the seventh and eighth divisions:

Our work began practically the first week in October. The school of the seventh division, in the Stevens building, had an enrollment of 210 pupils, in charge of Miss H. V. Tibbs. Cost of school, \$86.87. In the eighth division B, the school in the Randall building had enrolled 131 pupils under Miss M. E. Ware. Cost of school, \$81.25. In the Miller building were two schools. School No. 2, under Miss C. G. Arnold, had an enrollment of 157 pupils, from the seventh and eighth grades and High School. Cost of school, \$80.16. In room No. 1, there were from the seventh and eighth grades and High School 108 pupils under my care, being assisted on Thursdays by Miss M. E. Ware. Cost of school, \$90.35.

#### SEVENTH AND EIGHTH GRADES.

The plan of work has been similar to that of the previous year, with an increase in the number of dishes made. To do this we used our means for materials as judiciously as we possibly could. At each lesson the children not only made the dish and discussed the food materials, etc., but we had the cost of the recipe estimated, and taught them how to increase or diminish the quantities of materials used according to the number of persons to be served; knowing how many good cooks fail in this respect and become the loser thereby.

It is gratifying to note the progress made by the girls in these two grades. We feel that they fully understand the fundamental principles of cooking, and are able to make the simple dishes under each.



The cookbooks compiled by these pupils, with our guidance, show the amount of work accomplished, and will ever be of value to the girls, in that they contain recipes of dishes which they themselves have observed and assisted in making. Hence they need not lose time nor material, as their recipes, if carefully followed, need never result in failure. The efforts made at home by many of these children have been very satisfactory.

#### HIGH SCHOOL.

The work done by the advanced classes in cooking has been a decided improvement to that of any previous year. Six classes from the High School and the eighth grade of Garnet building took the third-year course. Many difficult dishes, such as clear soups, stews, salads, puff paste, fruit cake, preserving of fruits, etc., were successfully made by these young ladies. The nicety with which they have learned to prepare plain and fancy food repays abundantly for our pains and labor to teach them this useful art; for it is very true, as Meredith says, civilized man can not live without cooks.

The annual exhibition at Miller building, June 17 and 18, brought our work to a close. The specimens brought in by the pupils were greater in number and better in quality than at any previous exhibit. The teachers have worked earnestly. During my examination of the several schools in May, I noted the great improvement brought about only by the study and care of teachers and pupils. By no means have we reached perfection in the work, but are hopeful that another year will bring a still greater success.

I must not close without mentioning that during January, February, and March we taught on Saturdays a class of grown persons from the night schools. As many of them followed cooking as a vocation, the course of lessons proved greatly beneficial. The expenses of this class were met by the Ladies' Industrial Association, whom I commend for their great generosity toward the working girls of our city, as with the latter will always be my most earnest sympathies, and I do hope that another year we will be enabled to extend this work to the girls who attend the night schools.

Thanking the trustees, superintendent, teachers, and parents for the great interest taken in our schools this term, I am,

Yours, respectfully,

M. B. COOK,  
*Directress of Cooking.*

Mr. G. F. T. COOK,  
*Superintendent Public Schools.*

## SEWING.

WASHINGTON, D. C., *June 30, 1892.*

DEAR SIR: I have the honor to submit the following as a report of sewing, as carried on under my supervision in the seventh and eighth school divisions, for the year 1891-92:

We have had a successful years' work. Owing to an increase in our force it has given smaller classes to the teachers, thus allowing more time of the sewing hour to devote to pupils. A more complete course had been adopted this year than in previous years. Special instructions have been given in special practice lessons, and not so much stress put on continual garment-making as formerly. Starting with the first year work, theory and the mastering of the seven difficult stitches used in plain sewing have been the main features. Practice lessons in these stitches have been illustrated by the use of the blackboard by the teacher, the pupils using practice cloth of half-bleached muslin and colored sewing thread. Quite a pleasing feature of work in this grade has been the drawing of difficult objects on practice cloth by the pupils; also border designs taught in drawing lessons, and the pupils outlining them in stitching, backstitching, and running.

Any number of original designs were drawn by the pupils. This they seemed to enjoy, as it prevented them from tiring of the sameness that occurs in practicing stitches on long strips of cloth. A little sewing bag was made by each pupil, after the stitches were thoroughly learned by them. This they will use in the future for putting their work in. Some girls who were quick with the needle hemmed handkerchiefs and neckties for themselves, aside from completing the course as laid down for them.

Commencing with buttonhole making, two months were allotted for lesson in the fourth grade, although the pupil continued to practice from time to time during the year when spare moments occur. This lesson is followed by practice in patching, using striped material to patch on, bias joinings, using blocked gingham for this lesson, and felling, gathering, and placing band onto gathers. Only one garment, an underwaist of one piece, is required in this grade. Each little girl made one, completing it with buttonholes and buttons. It was pleasing to note the amount of interest they took in making this little garment.

Buttonhole practice has been continued in the fifth grade as a regular lesson. In fact, it is never dropped entirely from the course, but to allow time for other important lessons we can only give a very limited amount of time to it as a practice lesson. Gusset set has been beautifully done. It is a very important lesson, and one that requires both attention and time. Yet by using the angles in drawing, as a help for illustration, it has been easily grasped by the pupils. Indeed, the drawing teacher has little idea, no doubt, of the great assistance his



lessons render the sewing teacher. In comparing the directions of stitches to lines in drawing the one helps the other. Practice lessons in three darns were given—stockings darning, cross darn, and tear.

Some excellent specimens were shown by the teachers in this work. Hem stitching, fancy stitching, tucking, and border designs on gingham completed the practice lessons in this grade, when the making of various kinds of garments was taken up.

Skirt cutting and making, and cutting and making underwaist has been the principal work of the sixth grade. As we draw from this grade classes composed of the largest girls for the dress-making shops, the making of these two garments was introduced so as to benefit the smaller pupils who are able to attend. The practice lessons given have been the rolling and whipping on of ruffles, knitting and buttonhole practice. The pupils through the four grades prepare all of the work; the teacher only directs. The lessons given are certainly very practical, and needlework in our schools to-day is in an excellent condition.

#### DRESSMAKING DEPARTMENT.

Our dressmaking shops have been attended with great success, and the ladies instructing in this department are well equipped for their work. Owing to an additional teacher more classes have been formed, and a larger number have received instruction. One hundred and sixty-eight girls have regularly attended during the year, an increase of 78 from last year. The course of instruction has remained about the same, as having but one year in this department, but little more can be added. The improvements made in the shops this year have greatly benefited the pupils, as it has given them better facilities to work with. The girls were taught to make plain skirts and cut and fit. Quite a number made their own dresses toward the end of the year, from the knowledge gained in the shops.

The exhibitions, June 17 and 18, were very creditable to both teachers and pupils.

I regret we were not able to open a shop in South Washington this year, but trust that we may be able to accommodate the pupils in that locality another term.

#### NORMAL SCHOOL.

Beginning the 1st of October, I gave regular instructions in the normal school each week. The whole course of practice lessons as carried on in our four grades have been given them, and I feel confident that together with a former knowledge of sewing gained at home that successful teachers can be appointed from this class. Trained sewing teachers are absolutely essential for the advancement of the work. Also a knowledge of school management and discipline, which is gained



in the normal school, is requisite. I favor trained teachers for the work, and depend on this school for support in the work.

I am indebted to the principal, Miss Moten, and the young ladies of her class for the interest manifested in the work and courtesies shown me.

#### KINDERGARTEN WORK.

Believing that kindergarten sewing should be a preparatory course to the execution of actual stitches, and the management of the work, I experimented in two schools this year in the work, with excellent results. Two schools were kindly offered me, one first grade in the Magruder building and a second grade in the Jones building. Ten lessons were given each class, covering a half hour for each lesson, both boys and girls receiving instruction. It was very pleasant work, as well as beneficial. In grade 1, the sewing cards of letters and numbers were used, the forms and designs being used in the second grade. So much can be taught from it, viz: Formation of letters, and numbers, reading, spelling, number, language, forms, color, design, precision, and as a help to seeing, management of needle, thread, and material. It is a very interesting, busy work, the various shades of the worsteds used being attractive to the eye of the pupil. I hope this work will become universal throughout the first and second grades next term.

In summing up the year's work, it has been attended with great success and improvement. In April and May I made a thorough examination of all the schools, and found by results that the sewing teachers have spared no pains in the discharge of their duty. They promptly respond to the regular meetings, and do all in their power to advance the work.

I am glad to note the continued interest shown in the work by the regular teachers and supervising principals.

Thanking you and Mr. Cornish for your kindness and consideration, I remain,

Respectfully yours,

C. E. SYPHAX,  
*Directress of Sewing.*

Mr. G. F. T. COOK,  
*Superintendent of Public Schools.*

## AA.

## REPORT OF THE SUPERINTENDENT OF THE FREE PUBLIC BATHING BEACH.

OCTOBER 20, 1892.

SIRS: I have the honor to report for the free public bathing beach for this season as follows:

Bathers registered, 10,548, of whom 22 were females.

Receipts of donations on boat account .....	\$43.75
Paid on boat account .....	39.60
	<hr/>
Balance in hand .....	4.15
	<hr/>
Received for rent of suits since August 11 .....	81.45
Paid keepers .....	70.70
	<hr/>
Net to superintendent .....	10.75

Drownings, 2. One who could not swim. He did not register, but was smuggled into a room by friends who registered for themselves only. The other, a colored boy, who was swimming out in deep water, became frightened and sank. Since we have had a boat on the water not one life has been lost, and saving aid has been rendered to 7 persons. In one case the boatman, Raymond Salkeld, dove to the bottom and brought up a boy who had sunk, and his life was saved.

This year's experience has added some items of information: First, if proper facilities are provided to rent bathing suits and boats, and to sell light edibles and drinks (nothing intoxicating), I think the beach will be self-supporting. The first year it might not pay, the second would pay for itself, and the third would pay the shortage of the first. To accomplish this a keeper's house must be provided with conveniences to handle a crowd rapidly, because the main part of the bathing is done within two hours of each day; a cheap little floating house should be provided from which to rent boats, and a neat cooky stand made. These would not impose any burden upon the public beyond their trifling first cost, and they would be gladly patronized by those willing to pay for such conveniences.

In response to letters which I wrote to the mayors of the following cities, I give these particulars:

Philadelphia has free public baths, costing \$42,000, and maintains them at an annual cost of \$4,600.

Boston has had bathing places for twenty-five years, maintained at an annual cost of \$16,000.

New York's free baths cost her \$202,500 and an annual maintenance of \$38,000. In 1891 she registered 3,492,329 bathers, one-third of whom were females. Now, while I still believe that for the \$10,000 asked for last year, but not received, we could have provided ourselves with all the conveniences named in that plan, yet our past summer's record and the records of other cities show that we did not plan to accommodate half the bathers that Washington will present as soon as the bathing place is what it should be.

Other cities have to be content with floating houses in which they have a little more swimming room than sardines in a can, but Washington has a beautiful lake of clean water, out of the pathways of commerce and navigation, where we have a foothold, and wherein we can dam up a smaller lake, yet larger than all the bathing houses of New York, and large enough to serve Washington for a half century. And while we are about it, I think that dam, circling out into the lake, should be made a driveway wide enough for carriages to pass and to stop anywhere around it to watch the sport of bathers or to view the scenery, because this year the whole bank along the beach has often been so crowded with carriages that occupants in the rear could not see the swimmers. There is need of twice as many additional houses as before proposed, making 300 new rooms, and twice as many seats around the amphitheater, all to be shaded by a neat permanent awning. There should be provided ample gymnastic appliances, where athletes, our own boys and girls, may exercise and perform over and in the water, encouraged by the plaudits of an appreciative audience. What could add more to the enjoyment of thousands in hot weather, and what other city has so beautiful a place unincumbered by trade? If Washington will appropriate one-half the sum that Philadelphia has expended, or one-tenth as much as New York, we will have a more beautiful and attractive institution than can be found anywhere else, and a permanent self-sustaining one. A comprehensive plan should be arranged at the outset, because enough earth may now be taken from shore to make the dam wide enough for a roadway, but if a narrow dam were at first made and the bank put in proper shape, the earth to widen the dam another year would have to be hauled from a distance and would cost two or three times as much as now. If this comprehensive plan meets your approval I will present plans and estimates for your consideration, hoping that a bill may pass the next Congress so early as to permit the completion of the whole before June next.

Very respectfully submitted,

W. X. STEVENS,

*Superintendent of the Free Public Bathing Beach.*

**THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA.**



# INDEX.

	Page
Assessor, report of .....	15
Attorney District of Columbia, report of .....	62
Auditor, report of .....	47
Bathing beach .....	8
Bridges .....	15
Charitable and reformatory institutions:	
Columbia Hospital for Women .....	299
Industrial Home School .....	287
Reform School .....	226
Washington Asylum .....	207
Collector of taxes, report of .....	39
Commissioners of flour, report of .....	328
Coroner, report of .....	320
Debt of District of Columbia .....	4
Report of Capt. J. L. Lusk .....	371
Electric lighting .....	383
Gas and oil lighting .....	381
Lighting streets, gas, oil and electric .....	381-383
Oil lighting .....	381
Street lighting .....	381
Sewer division .....	383
Cleaning and repairing sewers and basins .....	383
Replacing obstructed sewers .....	384
Permit work .....	384
Main and pipe sewers .....	385
Suburban sewers .....	385
Sewage disposal .....	386
Relief sewers .....	387
Gauging sewers and rainfall .....	387
Water department .....	371
New mains laid .....	372
Valves, fire hydrants and fountains, moved, erected and repaired .....	372
Distribution system .....	372
Stop valves, fire and street hydrants, service connection and taps, number of .....	372
Fire hydrants, street hydrants, etc., in several sections of the city .....	372
Financial statement of, for fiscal year 1892 .....	373
Organization of, and estimates for 1894 .....	373
Mains laid during fiscal year 1891-'92 and assessments levied therefor .....	375
Mains laid from July 1, 1878, to June 30, 1892 .....	379
Revenues, comparative, actual and estimated .....	379
Meters, numbers, kinds and sizes in use .....	379
Water supply .....	380
High service .....	380
Pumps, public .....	381
Report of Capt. G. J. Fiebeger .....	527
Bridges, repairs to .....	566
Estimates for repairs of concrete pavements .....	534
street improvements, 1893-'94 .....	540
Extension of streets .....	538
Pavements, character and extent of .....	528
in various sections .....	529
tabular statement of repairs to concrete .....	532
maintenance of .....	533
estimates for repairs to in 1893-'94 .....	534

	Page.
<b>Report of Capt. G. J. Fiebeger—Continued.</b>	
Permit work .....	531
Grading and paving roadways .....	531
Sidewalks, alleys, sewers .....	531
Parking commission .....	537
Roads and suburban streets .....	530
repairs to .....	535
Railways, street .....	537
steam .....	538
Rock Creek Valley .....	539
<b>Report of Superintendent of Water Department .....</b>	<b>391</b>
Chief Clerk of Water Department .....	411
Superintendent of Lamps .....	419
sewers .....	422
Permit clerk .....	424
Inspector of Gas Meters .....	435
asphalts and cements .....	441
Computing Engineer .....	542
Superintendent of Streets .....	551
roads .....	562
Engineer of Bridges .....	566
Engineer in Charge of Surveys .....	575
Parking Commission .....	576
Superintendent of property .....	577
Chief Clerk of Engineer Department .....	627
Board of Examiners of Steam Engineers .....	630
Inspector of Boilers .....	630
Surveyor of the District of Columbia .....	631
<b>Streets .....</b>	<b>527</b>
<b>Streets, Avenues, and Alleys, Current repairs of .....</b>	<b>534</b>
<b>Surveys on account of Subdivision of Land .....</b>	<b>536</b>
<b>Streets, Extension of .....</b>	<b>538</b>
<b>Specifications for—</b>	
Laying Standard Asphalt pavement of Concrete base .....	615
on Bituminous base .....	618
Asphalt Block Pavement .....	618
granite block pavement on gravel .....	619
concrete base .....	620
brick or tile sidewalks .....	620
cement sidewalks .....	621
asphalt sidewalks .....	621
standard granite and bluestone curbing .....	622
special granite curbing .....	622
brick gutters .....	623
cobble gutters and crossings .....	623
Macadam roadway .....	623
Telford Macadam roadway .....	624
gravel roadway .....	624
culverts and retaining walls .....	625
Furnishing asphalt paving blocks and tiles .....	625
vitrified bricks .....	625
paving bricks .....	626
standard granite curbing .....	626
special granite curbing .....	626
circular curbing .....	626
granite paving blocks .....	626
<b>Tabular statement of—</b>	
Work done under contract chargeable to sewer appropriations .....	506
by day's labor under various sewer appropriations .....	512
Sewers laid under the permit system .....	516
Inspectors of sewer work .....	524
paid for street-lighting appropriations .....	526
engaged on manufacture of cast-iron pipe .....	526
Appropriations, expenditures and estimates .....	527
Street improvements .....	528
Pavements, character and extent of .....	528
distributed in various sections .....	529
Taxable valuations .....	529

	Page.
Tabular statement of—	
Permit work, curbing and paving roadways.....	531
sidewalks, alleys, and sewers.....	531
Repairs to concrete pavements.....	532
Maintaining concrete pavements.....	533
Estimates for street improvements, 1893-'94.....	540
Work done under contract on streets and avenues.....	544
suburban streets and county roads.....	546
grading streets, alleys, and roads.....	548
under permit system, curving and paving roadways, 1892..	549
for railroad companies.....	550
Inspectors on surface work.....	584
subdivision of lands.....	585
free bathing beach.....	585
Character and extent of street pavements.....	586
Contracts for construction material.....	627
supplies.....	628
Extension of streets.....	10
Fire department, report of chief engineer of.....	123
marshal, report of.....	137
Flower market.....	9
Harbor master, report of.....	332
Health officer, report of.....	653
Inspector of buildings, report of.....	308
fuel, report of.....	326
plumbing, report of.....	666
Inspectors and measurers of firewood, reports of.....	325
lumber, reports of.....	321
of flour, reports of.....	327
Liquor traffic, recommendation concerning.....	7
Market masters, report of.....	329
Municipal building, need of.....	9
Orders made by Commissioners.....	343
Police, major and superintendent of, report of.....	65
agent Humane Society, report of.....	117
harbor master, report of.....	119
property clerk, report of.....	83
sanitary officer, report of.....	114
Property clerk, report of.....	633
Reassessment of invalidated taxes.....	5
Revenues for fiscal year 1892.....	3
Schools, public: Report of board of trustees.....	815
Superintendent, report of, W. B. Powell.....	823
Superintendent, report of, G. F. T. Cook.....	963
Sealer of weights and measures, report of.....	331
Special assessment clerk, report of.....	23
Streets, extension and pavements of.....	10
Street lighting.....	18
Sunday law, recommending enactment of.....	9
Superintendent Telegraph and Telephone Service, report of.....	153
street and alley cleaning, report of.....	336
of charities, report of.....	162
bathing beach.....	1031
chimney sweeps, report of.....	632
Tax, rate of.....	5
Tires of vehicles, width of.....	17
Wires, electric, underground.....	9
World's Columbian Exposition.....	9







3 1172 01959 0991



**PUBLIC LIBRARY**  
**DISTRICT OF COLUMBIA**

MAY

1963